

"Age improves with mead, even more than mead improves with age."

— Unknown

I've been a meadmaker ever since I harvested my first honey crop. Beekeeping and meadmaking go together, and always have. There are many practical reasons for this. One is that old honey granulates over time while honey stored in the form of mead will remain "good" for many, many years. In fact, it gets better with age. Another reason is that at today's prices for local honey, most folks hesitate to fork over cash for a gallon of honey (well over \$100 around here), a typical amount used for a five-gallon batch of mead. But successful beekeepers have honey to spare. Perhaps another reason is that meadmaking requires a great deal of patience, which is another thing that successful beekeepers must possess.

What is mead?

Mead is commonly called "honey wine" but I think that is a bit rude. Mead is a much older and better beverage than grape wine. It has been around as long as people have gathered honey, much longer than people have cultivated grapes. It deserves the respect of being called by its proper name. The Vikings passed away long winter nights, singing and telling stories, in their mead halls, not honey wine halls.

That said, the Federal government refers to mead as "wine from other agricultural products." Instead of fighting the government, I guess we need to adopt the attitude of the old guy who said, "You can call me whatever you like as long as you don't call me late for dinner."

Is it legal to make mead?

The [Code of Federal Regulations, Title 27, Section 24.75\(a\)](#) says, "Any adult may, without payment of tax, produce wine for personal or family use and not for sale." It goes on to say, "The aggregate amount of wine that may be produced exempt from tax with respect to any



Mead is a "product of the hive" that is easier to make than you may think.

household may not exceed: (1) 200 gallons per calendar year for a household in which two or more adults reside, or (2) 100 gallons per calendar year if there is only one adult residing in the household."

North Carolina law mirrors Federal law on this issue. [N.C. General Statutes Section 18B-306](#) says, "An individual may make, possess, and transport wines and malt beverages for the individual's own use, the use of the individual's family and guests, or the use at organized affairs, exhibitions, or competitions. For purposes of this section, the term 'organized affairs, exhibitions, or competitions' includes homemaker's contests, tastings, and judgments." Furthermore, "No ABC permit is required to make wines or malt beverages pursuant to this section." However, it emphasizes, "Wines and malt beverages made pursuant to this section may not be sold or offered for sale."

So, we can make a lot of mead and share it with family and friends as well as take it to the State Fair and NCSBA Summer Conference competitions. But **do not sell it** unless you have

the appropriate liquor licenses, which are very difficult to obtain.

Types of mead

In its simplest form, mead is made with four ingredients: honey, water, yeast and time. It is that last ingredient that most folks don't seem to have much of! However, it is critical for making a quality product.

But just as there are many types of ordinary wine, there are many types of mead:

- Sack – “straight mead” made with nothing but honey
- Pymment – includes grapes/grape juice
- Cyser – includes apples/apple cider
- Melomel – includes fruit/fruit juice other than grapes, such as plum, pear, strawberry or whatever else you wish to squeeze
- Metheglin – includes spices
- Braggot – includes grains such as barley, as used to brew beer

Sack mead may be the most challenging to make really well because we aren't adding a lot of flavors to mask any imperfections in the mead. For that same reason, it needs to age longer than a full-bodied cyser or braggot that has a robust taste.

Also keep in mind that different honeys will make different-tasting mead. Clover honey mead is going to be very different than Tulip Poplar honey mead.

A quick word about yeast

In the same way that there are many breeds of dogs designed for different purposes (Chihuahuas, Bloodhounds, Rottweilers, etc.), there are many different strains of yeast. Among their many properties are different tolerances for alcohol concentration and different flavor profiles. For example, beer yeasts typically stop growing when the alcohol content is around 5 percent while champaign yeasts keep going until it reaches around 15 percent. Turbo yeast, used to make distilled spirits (illegal for anyone to make without a Federal permit), keeps going on up to 20 percent.



A hydrometer measures the specific gravity (relative density) of a liquid. As yeast converts honey syrup into alcohol, the density decreases.

With respect to flavor, if you were to make mead with common bread yeast, it would taste bready. Some yeasts leave a fruity taste, some hint of chocolate and others have a metallic taste. In addition, some yeasts do well in a high sugar-content solution while others do not. So, we must use the right yeast for the right job. But don't despair: if we follow a good mead recipe it will tell us what yeast to use.

Step 1: get some book learnin'

To make a good batch of mead, it helps to know a little about what you are doing. I highly recommend the book The Compleat Mead-maker by Ken Schramm. It has everything you'll need to know about making mead, including recipes for all types. It discusses the easy way and the hard way of doing things, and generally recommends the easy way.

Step 2: primary fermentation

For a simple batch of sack mead, put five quarts (15 pounds) of honey into a six-gallon bucket. Add water to bring the total contents up to five gallons (not six – there needs to be head space in the bucket). Add yeast energizer and nutrient, since honey doesn't contain much in the way of vitamins, minerals and protein that the yeast needs to reproduce. Add yeast. Stir with a long-handled spoon and then aerate well. I do this by pouring my bucket of fixings, called "must", from one bucket into another, back and forth, about ten times. Don't do this gently – think "Niagara Falls". This action thoroughly mixes and aerates the must at the same time.

Use a hydrometer to measure the original specific gravity (the relative density) of the must. You'll need this measurement later.

Cover the bucket with an air-tight lid and install an airlock. Schramm recommends using vodka in the airlock; it will kill any wild yeasts that fall into it and if any of it accidentally gets back-suctioned into the must it won't cause any harm.

Place the bucket in a cool (not hot), dark place. Mine does well in my basement.

After a few hours, the airlock will begin violently bubbling as carbon dioxide is off-gassed as the yeast consumes the honey. In beer-making, this fermentation stage lasts a few days. In meadmaking, it can easily last a month.

Step 3: secondary fermentation/conditioning

When the bubbling finally begins to subside, transfer the must from the fermentation bucket to a carboy (a large jug, like the ones used for old-fashioned water coolers). This can be either glass or a plastic one specifically made for brewing/wine/meadmaking. Glass is theoretically better but it is also more expensive and much heavier.

Install an airlock and leave in a cool, dark place for as long as you can stand it. In [Beekeeping at Buckfast Abbey](#), Brother Adam recommended cellaring mead for at least five years, so that's what I do. As mentioned, cysers,



Mead must condition in a cool, dark place for several years before it is worth drinking.

metheglins and other heavily flavored meads may be drinkable earlier, but a good sack mead takes time to develop. Commercial meaderies have special equipment to speed up the process, but that kind of cheating won't yield the same high-quality results that you'll get with patience.

Step 4: Bottling

You can bottle your mead at any time and allow it to condition in the bottle, but if you bottle it before fermentation is fully complete, it can easily pop the cork later when you don't expect it. I've had carboys pop their caps after three years, teaching me the hard way to leave airlocks on them rather than solid caps.

Before bottling, use a hydrometer to find the final specific gravity of the mead. Yeast has converted much of the dense honey solution to alcohol. The difference between the Original Gravity and the Final Gravity can be used to find the potential alcohol percentage. You don't have to work out the formula by hand – there are fill-in-the-blank conversion apps on the internet.

To bottle, it is easiest to transfer the mead from the carboy to a bottling bucket that is outfitted with a bottling spigot. A length of tubing fits onto the spigot; the other end of the tubing is fitted with a bottling wand, a long glass tube with a spring-activated valve in the tip. The wand goes into a bottle. Pushing down on it opens the valve and allows mead to flow into the bottle. When the bottle is filled all the way to the very top, raising the wand stops the

flow. When the wand is removed, it leaves exactly the correct amount of head space in the bottle.

Bottles can be corked with either a fairly inexpensive hand corker or a more costly but much easier to use floor corker. Or you can buy bottles with screw-on caps. Those aren't preferred for competitions but they are very handy for regular home use.

Not mentioned...

One thing I haven't mentioned is the need for proper sanitation of the buckets, tubing, hydrometer, bottles, etc. – anything that the must (sugar water and yeast) or mead (final product) will touch. Obviously, you will clean everything to remove dirt and grime. But cleaning should be followed by sanitizing – that's what kills the germs and wild yeasts that can ruin all of your hard work.

There are lots of sanitizers for brewing/ wine making equipment. I use StarSan, a popular and extremely effective product. It is mainly concentrated phosphoric acid – you will dilute one ounce into five gallons of water before using it. It is odorless, tasteless, fast-working (sanitizes surfaces in one minute) and completely safe when diluted.

Don't do what I've told you

Now that you've read all of this, please don't use this article as an instruction guide for making mead. This is intended to encourage you to give it a try, not to tell you exactly what to do. Ken Schramm's book will do that. And five years from now, when your first batch is ready, enter it into the NCSBA Summer Conference Mead Competition and the NC State Fair. I have won ribbons from both in many colors, including blue. You can too!

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Having the right tools for the right job makes bottling and corking easy.