The 1393 Bochet

As found in La Ménagier de Paris, 1393

Good Gentles, I present to you my findings from my research into a most perplexing and complicated recipe. This bochet recipe is famous, or more accurately infamous, for its use of archaic and obscure measures, its vague directions, and its maddeningly obtuse assumptions about what was probably common knowledge of the time. I have attempted to decode it to find a recipe that not only makes real-world sense but also makes something resembling sense for the time period.

This recipe presents a few major problems. The first is the use of the term “sextier”, which translates to “one sixth”. It uses this term in a vacuum, with no reference to what it is a sixth of – is it a sixth of a barrel, of a gallon, of what? It simply does not say. The second problem is the use of the term “pinte”, which we assume is the same as our modern term “pint”, and which it certainly is… sort of. The term is the same, but as we shall see, the meaning is very different. There are other minor things that need sorting, but much of this is cleared up by decent translations that understand the brewing process. The recipe that appears in La Ménagier de Paris[1] is as follows:

> BOCHET. Pour faire six sextiers de bochet, prenez six pintes de miel bien doulx, et le mettez en une chaudière sur le feu et le faites boulir, et remuez si longuement que il laisse à soy croistre, et que vous véez qu’il gette bouillon aussi comme petites orines qui se creveront, et au crever getteront un petit de fumée aussi comme notre: et lors faites-le mouvoir, et lors mettez sept sextiers d’eaue et les faites tant boulir qu’ils reviengnent à six sextiers, et tousjours mouvoir. Et lors le mettez en un cuvier pour refroidier jusques à tant qu’il soit ainsi comme tiède; et lors le coulez en un sas, et après le mettez en un tonnel et y mettez une choppine de leveçon de cervoise, car c’est ce qui le fait piquant, (et qui y mettroit levain de pain, autant vauldroit pour saveur, mais la couleur en seroit plus fade,) et couvrez bien et chaudement pour parer. Et se vous le voulez faire très bon, si y mettez une once de gingembre, de poivre long, graine de paradis et cloux de giroffle autant de l’un que de l’autre, excepté des cloux de giroffle dont il y aura le moins, et les mettez en un sachet de toile et gettez dedans. Et quant il y aura esté deux ou trois jours et le bochet sentira assez les espices et il piquera assez, si ostez le sachet et l’espraignez et le mettez en l’autre baril que vous ferez. Et ainsi vous servira bien celle pouldre jusques à trois ou quatre fois.

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[1] Le Ménagier de Paris, Traité de Morale et D’Économie Domestique, Composé Vers 1393, Par un Bourgeoius Parisien. (The Paris Householder, Treatise on Morality and Domestic Economy, Composed Around 1393, By a Parisian Bourgeois)
www.gutenberg.org/cache/epub/44070/pg44070-images.html#page_vol-2-237

Interestingly, it is found under the heading of “Drinks for the Sick”, so it might be assumed that this beverage was meant as a kind of medicine or at least as a remedy to ease the symptoms of illness in lieu of a cure. Another important point is that this book, in its entirety, is a guide to running a household – not a home, an entire household. I take this to mean everyone, the immediate family, maybe even extended family, cooks, maids, and other servants depending on the size of the estate. The recipes include ones for livestock, chickens, care of the sick, banquet style serving, and so on. This is meant to cover the needs of a relatively large number of people. Bearing this in mind and combining it with other context clues helps us understand the amount of materials we are dealing with. Now that we have the original, we need to translate it to a more vulgar tongue (as some put it) so that it is usable for our purposes. There are dozens of translations that can be had. I chose this one because it makes use of brewing terminology that was adapted to fit the literal translations that sometimes misconstrue the actual meaning of the terminology, due to lack of context. I’ve seen a few literal translations that make even less sense than the original. So here is the translation, borrowed from Tasting History[2], that I chose to start this process with:

> “To make six sextier of bochet, take six pints of very sweet honey, and put it in a cauldron on the fire and boil it, and stir for so long that it starts to grow, and you see that it also boils with bubbles like small blisters which will burst, releasing a little bit of dark smoke. Then add seven sextier of water and boil so much that it reduces to six sextiers, and keep stirring. And then put it in a vat to cool until it is lukewarm; then strain it through a cloth, and put it in a barrel and add a pint of yeast from ale, because that is what makes it piquant, (though if you use bread yeast, it makes as good a flavor, but the color will be duller), and cover well and warmly so it ferments.
>
> If you want to make it very good, add an ounce of ginger, long pepper, grains of paradise and cloves in equal amounts, except for the cloves of which there should be the least, and put them in a cloth bag and toss it in. And when it has been two or three days and the bochet smells of spices and is strong enough, take out the bag and wring it out and put it in the next barrel that you make. And so this powder will serve you well up to three or four times.”
>
> — Le Ménagier de Paris, 1393

With this now in hand, the hard part begins.

The trick from here was to get some sense of the meaning of our ancient units of measure. Most people would do a quick internet search and come up with a result that states that “sextier” translates to 6 gallons[3]. That is the quick, dirty, and quite wrong for our purposes answer that automatically pops up. This is where the beginning of the

[2] https://www.tastinghistory.com/recipes/bochet

[3] https://www.google.com/search?q=sextier+translation+to+english

problem starts. The other half of the problem occurs with the erroneous assumption that a pint (16 fl oz) of honey is the same as a pound (16 oz) of honey. This is a less common mistake, but I'm sure it has still occurred. We will get to that problem and its solution soon. Suffice to say that using 6 gallons as a sextier, and there being 6 sextiers of finished product, that makes 36 gallons. That is a very large quantity of liquid for a household. That equates to about 180 bottles of product. That's not very realistic, unless this is all you are drinking.

But here comes the real problem; once you move past this quick answer, you run squarely into the brick wall that is the French system of measurement in the Middle Ages. That would be because there wasn't one. There was no system. There was no standardization. It was a regionally based, hodgepodge of weights and measures that people kept adding to and adapting to changing circumstances without ever bothering to organize and codify it. A measure in Paris was not equal to the measure of the same name in a different region of France. That is putting it mildly, and as simply as I may. Given that this book dealt with Paris, that is where the research must be focused, and so around the internet I bounced. I found that sextier is more likely than not a left-over roman term, derived from sextarius[4], which indeed was a liquid measure and equal to about 1 English pint. Its translation being "a sixth portion of", it was a sixth of a congius[5], which itself was an eighth of an amphora[6] (which equates to a bit over 6 US gallons). While the amount this word represented changed over time, the name itself stuck around, and would continue to be used for many more years. Most likely it was a common term for a particular amount of liquid, a standard of measure, if you will (full irony being implied here). One thing that did evolve over time was its spelling, having changed right along with the French language. Synonyms[7] of sestier, setier, cester, sester, and others are all attributed to being of the same meaning and origins.

Being hard pressed by the amounts involved, and considering that none of the other measures were still used in France, I needed to find more era-specific information, as the standards evolved quite a bit within the Medieval period. I was saved when I ran across a treatise by a person named Pierre Portet, who researched the Paris Chamber of Accounts dating to the 13th and 14th centuries[8]. Specifically, they researched wine measurements and provided very specific information on the conversions to other

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[4] https://logeion.uchicago.edu/sextarius
[5] https://logeion.uchicago.edu/congius
[6] https://logeion.uchicago.edu/amphora
[7] https://www.anglo-norman.net/entry/sextier,https://www.cnrtl.fr/definition/setier
[8] Wine Measurements in France in the 13th and 14th Centuries, according to the memoirs of the Paris Chambers of Accounts, by Pierre Portet, 1991
https://www.persee.fr/doc/bec_0373-6237_1991_num_149_2_450623

regions. In this document, I found a table that provided me with the very measures I needed, along with the modern metric liter equivalent. Here is the table that I found:

Cela permet de proposer les équivalences suivantes pour les mesures parisiennes de liquides au premier tiers du XIV[e] siècle :

Muid	1	129,728 litres
Setiers	16	8,108
Quartes	64	2,027
Pintes	128	1,014
Chopines ou sexterons	256	0,507

LE MUID PARISIEN ET SES SUBDIVISIONS VERS 1330

Il faut bien remarquer que cet échelonnement n'est pas valable pour toute la fin du Moyen Age. En 1478, la plaidoirie d'un avocat à la cour des aides signale que le muid de vin compte 32 setiers, soit un doublement de la capacité, et vers la fin du XV[e] siècle le muid parisien de vin clair atteint 36 setiers, contenance qu'il gardera jusqu'à la Révolution [20].

This table of measures is from about 1330, and in the paragraph below, it states that this standard would change in 1478, with the Muid (barrel) size being doubled to 32 setiers, and going to 36 setiers by the end of the 15th century. This having been taken from court and accounting house records, I can say with relative certainty that it is accurate for the time frame in question, namely 1393, and that this information is about as good as I was going to get. I am comfortable taking setiers to be the measure that is discussed in the recipe, because this treatise was written in modern French, and that the measurement makes sense, as you will see later.

Now that we have that issue relatively settled, we move on to the problem of the Pint. As we all know, a pint as a liquid measure is about 16 ounces in the US. In many portions of France at that time, this is also true. However, Paris had their own version of the Pint, known as the Paris Pint. If you look at that table above, 1 Pint = approximately 1 Liter, which is just about 2 US Pints. In other words, a Paris Pint is equal to the US Quart. Therefore, when they say 6 pintes of honey in the recipe, they are really saying 6 US Quarts. Now that we have this table, and the knowledge of the actual size of the pints in question, we must now do some conversions to see what the actual quantities in the recipe.

The measures are being rounded for ease of use and clarity. Decimals are nice, but largely irrelevant in terms of how they affect the brew we are trying to make. Brewing is not an exact science now and was much less so then. I did all my metric conversions with a metric conversion app. All gallons are in US gallons.

The math looks like this:

1 setier = 8 L = about 2 gallons, so 6 setier = 12 gallons of water. 7 setier would be 14 gallons. This is important later during the boil/reduction phase.

1 Paris Pint = 2 US pints or 1 quart. A gallon of honey weights about 12 lbs. 12 lbs / 4 quarts per gallon = 3 lbs per quart. Thus, each quart weighs 3 lbs. Since we are using 6 quarts, the total honey would be 18 lbs.

This is all to say that the ratio of water (12 gallons) to honey (18 lbs) is 1:1.5. (18:12=1.5).

This is our ration of water to honey for this recipe. This is the most important information we can have. It also makes the most real-world sense. Most brewing is done in a ratio of 1.5 to 3 lbs of honey per gallon of must (mixture of water and fermentable sugar, in this case honey). The more honey, the more alcohol is produced, and the longer it will keep. This brew is meant to be a medicinal drink, so alcohol content is probably not meant to be very high, nor is it meant to be aged very long. At this volume, you are going to get about 60 bottles out of this recipe, which would be plenty to get a household through seasonal sicknesses and regular illnesses, and it also makes sense for storage. It was probably left in a cask and bottled from that as needed. It is easier to store 12 gallons than 36 gallons.

There is a twist that I discovered after going through all this research that I found a little funny. IF you assumed, as many do, that 6 sextier means 6 gallons, AND IF you knew that each US pint of honey was about a pound and a half, totaling 9 pounds for the 6 pints, you end up with the same 1/1.5 ratio. It's the wrong way to the right answer, according to my research, but sometimes you get lucky.

One quick side note on the mentioned volumes in the recipe. Remember that the stated goal at the beginning of the recipe is to end up with 12 gallons of bochet. After the honey is boiled, it calls for 14 gallons of water to be reduced back to 12 gallons. That does not mean you are boiling off 2 gallons of water! The honey is also part of this volume, and in this recipe, you are starting out with a gallon and a half of honey. That takes up space. When you add the water, your volume will be about 15.5 gallons. To get to 12 gallons, you will have to boil off 3.5 gallons of water. This works out to be about 25% of the volume that needs to be boiled off. Personally, I would error on the light side of that 25%. Boiling the honey causes is to caramelize, which makes it less fermentable if not totally unfermentable, and having the must too concentrated can stress out the yeast and cause problems. Better to have a little extra water than to not have enough.

A note on the spices: the recipe calls for ginger, long pepper, grains of paradise, and clove. It is a bit ambiguous on the amounts. Due to lack of availability, I substituted most of the spices for ones with similar taste profiles that I believe will approximate the original intent. I used cinnamon, allspice, nutmeg and clove.

So now that we've broken down the numbers, here is what the recipe would look like.

To make 12 gallons of Bochet

Ingredients: 14 gallons of water

18 lbs of very sweet honey

Ale yeast (calls for a pint of yeast, so at least 2 packets for this volume)

1 oz spices - equal amounts ginger, long pepper, grains of paradise, and clove (which should be less than the other spices); all in a bag.

(The spice directions are vague, but a good rule is to use very little clove compared to the rest; clove can really overpower the other spices. It also doesn't say in what form the spices should be (whole, cracked or powder), but it does refer to it as a powder when instructing you to save it for the next batch. Powdered spices can diffuse in alcohol very quickly, tend to make a mess, and can be hard to control. I recommend using whole spices and cracking them or otherwise breaking them up a bit to help them to infuse quickly without getting away from you. This is a personal choice, so see what works for you.)

Take your honey and boil it in a very large vat, stirring constantly, until it grows in size and the bubbles start to release a dark smoke when they burst.

(Before doing the next step, I recommend removing it from the heat source, and making sure you are wearing protective sleeves and gloves. Boiling honey is like napalm and will severely burn you. Adding water to this mix may make it react violently, so a little at a time is a good idea.)

Add your 14 gallons of water to the honey which results in a volume of approximately 15.5 gallons, bring it to a boil again, and boil until you have 12 gallons of must left. It helps if you mark a line on a measuring stick or your stirring device where 12 gallons would come to, that way you have a way to measure your progress while it is reducing. Once you hit your mark, you can remove it from the heat and let it cool. The reduction should be about 20 to 25% of the starting volume of the mixture.

Strain the mixture through a strainer or cloth into a vessel to cool to lukewarm, below 100°F (this is the time to take a specific gravity, SpGr, reading so you know how much

sugar is present in the must. This will help you calculate your ABV after it's done. SpGr should be around 1.050 to 1.070.)

Add a pint of ale yeast, and let it ferment until done. It's done when the activity has slowed down (bubbles through the airlock or visible bubbling activity in the must has slowed or stopped, if you can see it in your fermenter) and you can verify this by taking SpGr readings a week apart. If the SpGr readings haven't changed, you know it's done as much as the yeast were willing to do or as much fermentable sugar as was present. Remember, not all the sugar will ferment due to the caramelization of the honey. Your final reading may be a little as 1.010 to as much as 1.040 depending on how well you boiled your honey. Practice with this recipe will give you dependable results, once you refine your techniques and timing.

Once it's done fermenting, remove it from the lees (sediment layer in the bottom of the fermentation vessel) into another vessel, and add your spice bag for 2 to 3 days.

After removing the spices, you can let it sit and clear if you want, and you can stabilize it, either chemically or through pasteurization. I pasteurize my brews. Not stabilizing can run the risk of bottle carbonation which may explode your bottle. No bottle bombs, please. Once stable, you can bottle it. Be sure to take a final SpGr reading to calculate your ABV. (Starting gravity minus final gravity = points of gravity used. Multiply this number by 131.25 to get the alcohol percentage.) It will be on the low end of the ABV scale, probably around 5 to 8%.

The process I've described here is very basic and broken down. There are some added modern steps that are part of the best practices for health and safety purposes. Otherwise, you are making it the same way they did in the 1300's. Boil the honey, add water, boil some more and reduce, cool it off and add the yeast, wait until it's done, remove it from the lees, add spices, remove spices, stabilize, and bottle. Sounds pretty easy, right?

Needless to say, I did not make 12 gallons of this bochet. I reduced the recipe to a 1-gallon batch and made all the necessary adjustments to the recipe. **Pictures are included at the end to show more details about the boiling and brewing process. Please refer to them as you read, if you wish.**

I started with 1 gallons of spring water, plus about 1/6 of a gallon to add to the secondary boil, and 1.5 lbs of local fall honey. I used ½ packet of Lalvin D47 yeast. For the spices, I used 2 cinnamon stick broken up, about 2 Tbsp of allspice berries cracked, 3 whole cloves cracked, and a ½ tsp of ground nutmeg, all in a paper tea bag with a drawstring. Then I followed the directions as above. I boiled the honey, which came to boil very suddenly and multiplied in size rapidly. I was told to use a much bigger pot than

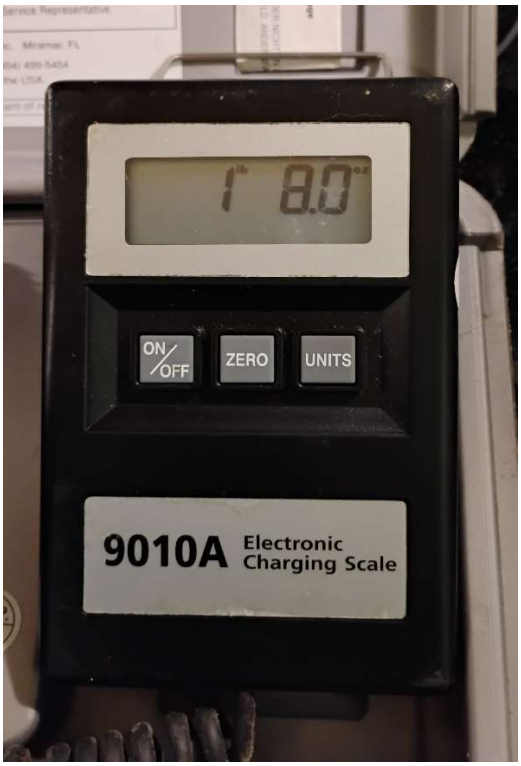
I thought I needed, and it was not a lie. For a 1-gallon batch, get the biggest one you can use on your stove. I'm not kidding. It took about 12-14 minutes to really start to bubble the way it's described, with smoke coming out of the bubbles. I removed it from the heat to add the water, and it still reacted immediately. Be very careful here. Once I got all the water in, I brought it up to a rolling boil.I reduced the volume down to a one gallon mark I made on a wooden spoon. Once it was reasonable cooler, I poured it through a strainer to filter out any foam solids that had formed into a 1-gallon glass fermenter, let it cool off, and added my yeast. The starting gravity was 1.054. It started up within 24 hours, and it took about a month to finish. I racked it to another 1-gallon glass fermenter, this time the wide mouth variety, to add the spices, let them sit for 3 days, and then removed them. I then pasteurized to make sure there would be no re-start to the fermentation and bottled it. The whole process took about 6 weeks or so. I'm very pleased with the color and the taste, and I hope those who partake in it are too. The alcohol content should be between 5 and 9%.

Final Thoughts... This was a process, from start to finish. The hardest part was figuring out my ratios, because French measurements make no logical sense. That did make this a great challenge, which I enjoyed, and I was very pleased to make some breakthroughs that maybe other brewers have not heard of or seen. I hope it helps future brewers make this brew a little easier and with less hassles. I love the color and taste of the final product, though I will be experimenting with this recipe further to see how far to the dark side I can push that color without running out of fermentable sugars. This is definitely one I will do much experimenting with, to perfect the process and timing of the steps to provide a predictable result, as much as any brew can be predictable anyway. This was fun and I will be doing this again. Thank you for reading.

Yours in Service to the Dream,

THL Kumagaya Kentarou Masamoto, known as Kuma

Left photo: Fall honey from Carlise PA, 1.5lbs **Right Photo**: Honey in the pot being weighted. Note the pot size compared to the amount of honey.



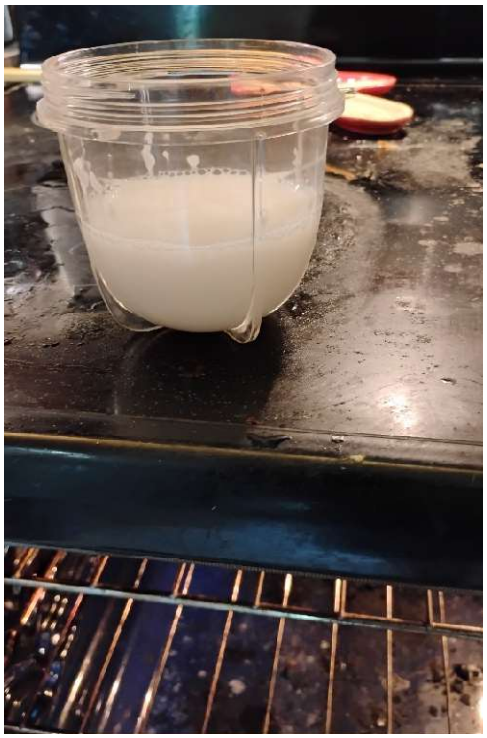
Left Photo: 1.5lbs on the scale **Right Photo**: 1 gallon mark on wooden spoon.

Left Photo: Honey starting to heat. **Right photo**: Honey starting to boil. Notice the light color of the foam.

Left photo: Foam darkening. Note the increase in volume. **Right Photo**: The honey is now dark brown, the texture has changed and is now producing large bubbles. It is ready to be taken off the heat and have the water added to it.

Left photo: Water added to the honey, 1 1/6 gallon. **Right Photo**: Note the color of the must. It is very dark brown. This is what we are looking for.

Left photo:Secondary boil is boinling off the 1/6 gallon extra water. This is to add boiling time without loosing product. **Right photo**: Measuring to the line for 1 gallon.



Left Photo: Pehydrated yeast Lalvin D47. **Right Photo**: Must strained into 1 gallon carboy. Straining removes left over solids from the honey.

Left Photo: Finish must with yeast added waiting for fermentation to start.

Right Photo: Fermentation has started within 24 hrs. Note the bubbles at the top.