This document was edited by the Amazing Domina Marcia Dulcitia, OL, OP, OR. Her expertise was a big help in the formatting of this document.



ID #: 052975KC

Category & Division: Brewing Division III: Technological Sciences: Beverages

Title: Mead for the Masses: A comparison of techniques and styles

Country or Region Item is from in Period: Western Europe

Time Period: Late 16th Century

Intended Setting of Item: Meads and short meads were found at many meals. They were drunk

by all classes of people from peasants to the nobility.

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Inspiration:

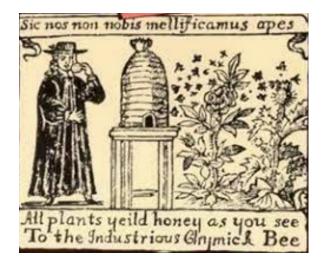
Years ago, I decided that as a chandler in period I would have kept my own bees for the wax. This posed a small dilemma, what would I have done with the honey that was all over my wax? The answer was easy, I would have a second business of making mead. So, the journey to making candles lead me to making mead as well.

When searching through "The Closet of the Eminently Learned Sir Kenelm Digby Opened" (Digby's) I discovered short meads (a mead that, in period, was left to work {ferment} for only two weeks). I do not recall trying any short meads before, so I decided to try my hand at it. I made Sir William Paston's Short Mead and another short mead (nicknamed "Angel's") found in 'The Closet of Sir Kenelm Digby, Opened.' Both had wonderful flavors and were fun to drink-

Knowing that not everyone made the same flavors all the time, and that brewers had their own recipes, I decided to branch out and try other combinations of flavors that I would enjoy. This led me to look through 'The Good Wife's Guide,' 'Delights for Ladies,' Digby's, and 'The Herball or Generall Historie of Plants' for spices and fruits that were commonly used in period. I found that many popular flavors in period are still in use today.

So, armed with this new information, I decided to experiment with how much the spices change the flavor of mead. To demonstrate this, I used the same Mountain Gold honey in all the meads presented today.

In addition, I wanted to show how the flavor is also affected by the aging process. I created a regular 6-month mead using only the Mountain Gold honey to demonstrate the flavor difference between a short and long mead.



Style and Creativity:

Short meads are sweet and effervescent meads that were a daily drink for people in the late Middle Ages and Renaissance. They were easy to make, comparatively quick, and made the water potable. With less than 2% alcohol by volume, short meads and small beers were safe to consume during the working day and by children. Small meads are nice, light, naturally carbonated drinks that are very refreshing.

Discussion of Creative elements:

For this project I decided to make two short meads using period recipes, plus two short mead variations of my own by using period spices and fruit to create my own flavor profiles based on the period recipes. After looking through Digby's, 'The Good Wife's guide (Le Ménagier de Paris)', 'Delights for Ladies', and 'The Herball or General History of Plants' to find period spices and fruit that could be used in other recipes, I chose two combinations that I thought would make good mead: orange peel and clove for one, and blackberry and black peppercorns for the other. Both flavor combinations play with the cooling effect of the fruit contrasting with the warmth of the spices. When I tasted the must (honey, water, and other flavorings without the yeast) both flavors tasted good together. I am optimistic for the final products you are tasting today.

Ingredients:

Ingredients Used in Period:

Common Ingredients for All Meads: Honey, water, ale yeast,

Paston's: rosemary, bay leaves, and lemon peel

Angel's: lemon balm, minth (mint), elderflowers, clove, lemon peel, ginger

Orange/Clove: orange peel and clove

Blackberry/Black Pepper Corn: blackberries and black peppercorn

Ingredients used in the entry:

Common Ingredients for All Meads: Honey, water, Safale US-05 dry yeast

Paston's: rosemary (from my garden), bay leaves, lemon peel

Angel's: lemon balm, spearmint (from my garden), elderflowers, clove, lemon peel, and ginger

(from my garden)

Orange/Clove: orange peel and clove

Blackberry/Black Pepper Corn: blackberries and black peppercorn

Explanation of any ingredients that are different from those used in period:

- Florida Oranges were used because you cannot easily buy the Seville orange, which is the variety that would have been used in period. Seville oranges are more pithy and bitter than our modern fruit.
- The use of blackberries was incorporated because they were common to the British Isles, and I like the flavor.
- I used Safale US-05 dry ale yeast because it is unsafe to use wild yeast. The wild yeast of 21st century Florida is vastly different from the wild yeast of 16th century Europe. While there are yeast strains available that are well over five hundred years old, it is not something that is within my current budget or ability to obtain.

Tools and Equipment:

Tools and Equipment used in period:

- Iron or Copper Kettle for heating the must.
- Wooden ladle for stirring the must.
- Fire for heating the must.
- Wooden tubs or casks for cooling the must.
- Vessels that can be stopped closed such as a wooden keg or large pottery jug for fermenting the mead or beginning the fermentation of the short meads.
- Glass or pottery bottles for fermenting the mead and storing it.
- Corks for sealing the bottles and other sealed vessels.
- A cask that previously held sack (a fortified white wine) for finishing the 6-month mead

Tools and Equipment Used in Entry:

- Large pot for heating the must.
- Wooden spoon for stirring the must.
- Modern electric stove for heating the must.
- Glass carboys for cooling the must, fermenting the 6-month mead, and beginning the fermentation of the short meads.
- Glass bottles with swing tops for finishing and storing the meads.

Explanation of Differences:

- I used my stove to heat the mead as I do not have a firepit in my backyard to heat the mead over an open fire, nor do I have a pot of the right size that is safe for using over an open fire.
- I used a regular pot as I do not have a kettle large enough to brew mead in as they are quite expensive.
- I used a wooden spoon instead of a wooden ladle as I do not have a wooden ladle and have not found any in stores.
- I used my carboys in place of wooden vessels as I do not have wooden vessels (wooden tubs and casks) or a place to store them. I can use the carboys for the cooling of the must, the fermentation of meads, and the beginning day of fermentation of the short meads.
- I did not place the 6-month-old mead in a vessel that held sack (a cask) as I do not own one and cannot afford to purchase a used cask. Instead, I used my glass carboy.
- I used glass bottles with swing tops instead of bottles with corks because Florida is much
 warmer than England so the short meads brew much faster than they would in period.
 When you stop up the bottle with a cork, there is no way to release the gases made by
 the yeast as it creates natural carbonation in the mead. Too much pressure in the bottle
 will cause the bottle to either explode or eject the cork. This can create some

catastrophic effects. By using a swing top lid, I can easily release some of the pressure periodically so that there are no explosions in my house (again). (Pictures of the damage exploding bottles can do in the appendix.)

Methods and Techniques:

Methods/Techniques used in Period:

In period, when making mead of any kind, the brewer would start by heating water in a kettle. Some recipes state to use fountain water or spring water specifically, others just say water. They would then add the honey and stir it together bringing it to a boil. While the mixture was boiling, they would clean the scum off the top of the water.

Once the honey was incorporated into the water and cleaned, they would add in the seasonings they were using, if any, and cook them into the must. They would then let the must cool before adding the yeast. Ale yeast was the most common variety used for mead at the time.

For short meads, after the yeast was added they would "turn" the mead (put it) into a well-covered, clean tub for about three days. After three days they would bottle the short mead and cork it. The recipes state that it was good to drink ten days later.

For regular meads, they would put the mead into a cask that was not full in order to leave room for the mead to work. They would then bottle and drink it after about six months.

Methods and Techniques used in the entry:

When making the aged mead I followed the standard boil the water, add honey, scum the honey until no more rises, allow to cool, and add yeast process. I deviated here by putting my mead into a carboy to work instead of a cask. I allowed it to ferment until it stopped and then racked it off of the lease (leez). I then allowed it to rest for six months before bottling.

When making the short meads from Digby's I made some deviations in the brewing process. I only made gallon batches of each type, even though the recipes call for more, as that is still a lot of mead, and it needs to be consumed quickly. Since I was only making gallon batches of the cited recipes, I had to reduce the amount of honey, herbs, and spices to match the amount of mead I was making.

For Paston's mead I converted 12.5 pounds of honey to ounces and got 192 oz of honey. I then divided that into seven gallons of water and got 27 oz of honey per gallon of water. Since the recipe called for handfuls of the herbs, I followed Master Taidgh's thought pattern on deciding what a "handful" was with a modification (appendix). I grabbed a handful of flour and weighed it. Then using the unit converter app for measurement conversions, I redacted Paston's mead to 1.5 teaspoons or half an ounce of rosemary and bay leaves and rounded up to two teaspoons per gallon for better flavor.

I used the same measurement approach for the small mead nicknamed "Angel's." Knowing how strong ginger and cloves can be and that the recipe for "Angel's" mead does not have quantity numbers, I kept to the same approach. Therefore "Angel's" mead has one teaspoon of Lemon

Balm, two teaspoons of spearmint, two teaspoons of elderflowers, one clove, 1 oz of fresh sliced ginger, and ¼ of a lemon's zest per gallon.

After flavoring the must, I followed the period steps of allowing the must to cool before adding in 1 teaspoon of yeast to both the Paston's and Angel's short meads. I allowed the yeast to wake up before I moved to my next deviation of the recipes - Instead of allowing them to work for three days and then bottling the meads I bottled them immediately using glass bottles with swing top lids. I also had to release the pressure in the bottles periodically to prevent mishaps.

I have discovered the hard way that due to the differences in the climates of England and Florida, if you follow the recipe exactly you can get spectacular explosions (appendix). Thanks to our higher heat, the yeast works much faster and creates a good amount of natural carbonation very quickly. This allows the mead to be enjoyed much faster than in England.

After I made the period mead recipes I started on my variations. I followed all the above steps when making these meads. The only differences are in the fruit and spices I used. Paying attention to the strength, or lack thereof, in the fruit and spices I chose, I endeavored to have each flavor shine in their respective drinks. That means I kept the measurements for the fruit and spices similar to the ones I used in the period recipes. For my orange/clove short mead I used the zest of two Florida Oranges that were about the size of my fist and four cloves. For the blackberry/black peppercorn short mead I used one pint of blackberries and one teaspoon of black peppercorns.

Conclusions:

While reading Digby and 'Ladies Delights,' I discovered a wide variety of flavors and ideas for meads. People had many of their own styles and shared them. I compromised on the bottling process of the mead as experience has shown me the disastrous results achieved by following the recipe exactly under conditions that are quite different from the original. I do not believe it has changed the results of the mead as the flavors from my first attempt to make these meads in 2018 where I followed the recipe exactly, and the flavors of today's experiment are the same to my memory. If I were to redo this project again, I would love to have an oak cask to allow the short mead to sit in. It would be interesting to find out if allowing the short mead to sit in a cask, which should not explode, would change the flavors and carbonation level of the mead.

Glossary of terms:

Lease (lee z): the dead yeast and sediment at the bottom of the carboy or cask of mead.

Minth: Mint

Must: The honey, water, and seasonings in mead before the yeast is added.

Scum: the wax and other unwanted materials that is cleaned out of mead during the cooking

process.

Turn: Pour into another container

Work: to allow the yeast to create fermentation.

Zest: the peel of a citrus fruit without the white pith.

Appendix 1:

Pages from Digby's where the recipes can be found. then the will be Meath Weak BAYNAM excellent good. excellent good.

excellent good.

excellent good.

MY LADY MORICE HER SISTER MAKES

MY LADY MORICE HER SISTER MAKES noneths Take four quart ter, boil HER'S THUS.
HER'S THUS.
Dissolve your honey in the water till it bear and bigher or lower, according to the stree and Lifour Gallons bryarit four well, whe stir it well, and day boil it, and Dissolve your hone, according to the strength Egge higher or lower, according to the strength Egge higher of. Then put into it some strength it cool o every you will have it of you will have it of some start you will have it of some some some some worm wood and a little Rosemary, and a little Sage; lissolvlit, till e con-THE CLUSET OPE.NED ample, 100 TO MAKE WHITE MEATH then let it st ment will fall TAKE Rosemary, Thyme, Sweet-bryar, Penyroyal n Galclear, and wa Bayes, of each one handful; steep them 24 hours in e vera bowl of fair cold water covered close; next day honey to it, handboil them very well in another water, till the colour woodden ba yling be very high; then take another water, and boil the next day bo im at same herbs in it, till it look green; and so boil them the scum th And in several waters, till they do but just change the e Liboyant. colour of the water. The first waters are thrown due time, a into away. The last water must stand 24 hours with the fuls, which avs; herbs in it. The Liquor being strained from them. it or Put this i you must put in as much fine honey till it will bear et it still an Egge; you must work and labour the honey days. for · bread and with the Liquor a whole day, till the honey be conthe sumed; then let it stand a night a clearing. In the are hot) s yet morning put your Liquor a boiling for a quarter of Ale-yest hat s of six Eggs. So with such t 2 tand a day a coolof double c the vessel in a 25 tye fast a ut amon and Nutup high re will have it to working 2 of two or three the Tut S ich of Wheaten-Skimot ou stop it, afterhead : balt. A quart of into ar) proportionably SIR WILLIAM PASTON'S MEATHE Take ten Gallons of Spring-water, and put therein of sed ten Pints of the best honey. Let this boil half an rel hour, and scum it very well; then put in one handful of Rosemary, and as much of Bayleaves; with

KENELME DIGBIE

a little Limon-peel. Boil this half an hour longer, then take it off the fire, and put it into a clean Tub; and when it is cool, work it up with yest, as you do Beer. When it is wrought, put it into your vessel, and stop it very close. Within three days you may Bottle it, and in ten days after it will be fit to drink. ANOTHER PLEASANT MEATHE OF SIR WILLIAM PASTON'S

To a Gallon of water put a quart of honey, about ten sprigs of Sweet-Majoram; half so many tops of Bays. Boil these very well together, and when it is cold, bottle it up. It will be ten days before it be

ready to drink.

ANOTHER WAY OF MAKING MEATH Boil Sweet Bryar, Sweet Marjoram, Cloves and Mace in Spring-water, till the water taste of them. To four Gallons of water put one Gallon of honey, and boil it a little to skim and clarifie it. When you are ready to take it from the fire, put in a little Limon-peel, and pour it into a Woodden vessel, and let it stand till it is almost cold. Then put in some Ale-yest, and stir it altogether. So let it stand till next day. Then put a few stoned Raisins of the Sun into every bottle, and pour the Meath upon them. Stop the bottles close, and in a week the Meath will be ready to drink.

SIR BAYNAM THROCKMORTON'S MEA-

THE.

Take four quarts of Honey, good measure; put to it four Gallons of water, let it stand all night, but it it together. The next

SIR KENELME DIGBIE SEVERAL SORTS OF MEATH, SMALL AND STRONG I. SMALL. Take ten Gallons of water, and five quarts of honey, with a little Rosemary, more Sweetbryar, some Balme, Burnet, Cloves, less Ginger, Limon Peel. Tun it with a little barm; let it remain a week in the barrel with a bag of Elderflowers; then bottle it. 2. Small. Take ten quarts of water, and one of honey, Balm a little; Minth, Cloves, Limon-peel, Elder-flowers, a little Ginger; wrought with a little yest, bottle it after a night working. r: thirteen quai ige and Buglos ar; pour it into est; hang in a bas Ginger. Water, and four little Sage, Ros e days cooling. ind bottle it 5. very surong. 10 ten Gallons of water take four of honey. Clarifie it with flower; and put into it Angelica, Rosemary, Bayleaves, Balm. Barrel it without yest. Hang in a bag Cloves, Elder-flowers, 6. Very Strong. Take ten Gallons of water, and four of Honey. Boil nothing in it. Barrel it when cold, without yest. Hang in it a bag

Digby's basic mead page 67

the Liquor: and if it doth not, then put in more honey, till it will bear the Egg. Then take the Liquor, and boil it again; and assoon as it doth boil, skim the froth very clean from it: Then set it a cooling, and when it is cold, then put it into a Kive, and put barm thereto, and let it work the Space of a Week; Then Tun it up: But be careful when it is Tunned, that the vessels be not stopp'd up, till it hath done hissing.

ANOTHER SORT OF METHEGLIN

TAKE to one part of honey, three parts of water: and put them into clean vessels, mixing them very well together, and breaking the honey with stripped arms, till it be well dissolved. Then pour out your Liquor into a large Kettle, and let it boil for two hours and a half, over a good fire, skiming it all the while very carefully as long as any scum riseth. When it is boiled enough, pour out your Liquor into clean vessels, and set it to cool for 24 hours. Afterwards put it into some Runlets, and cover the bung with a piece of Lead: have a care to fill it up always with the same boiled Liquor for three or four months and during the time of working. This Meath the older it is, the better it is. But if you will have your Meath red, then take twenty pound of black Currants, and put them into a vessel, and pour your Liquor on them. Of this honey-Liquor you cannot drink till after nine months, or a year.

Master Taidgh's thoughts on deciding "What is a 'handful'?"

The herb quantities were derived using the following process: a) find cook A with large hands (Ld. Armand is about the size of Earl Finn; b) find cook B with small hands (your author); c) have each cook take one handful of flour and place it in a single measuring cup; d) read measurement and divide by 2. One "standard" handful is defined thusly.

Documentation of fruits and spices:

See photocopies for some of the recipes and documentation for the blackberries. See the books on the table for pages that contain the spices and fruits used in this project.

Humor foot note:

The damage done to my kitchen from two of the attempts to make short mead following the recipe more exactly.



Figure 1 - Patched hole in wall from exploding glass.



Figure 2 - Patched hole in ceiling from exploding glass (5' away)



Figure 3 - Permanent stain on the ceiling from mead explosion 5' away

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