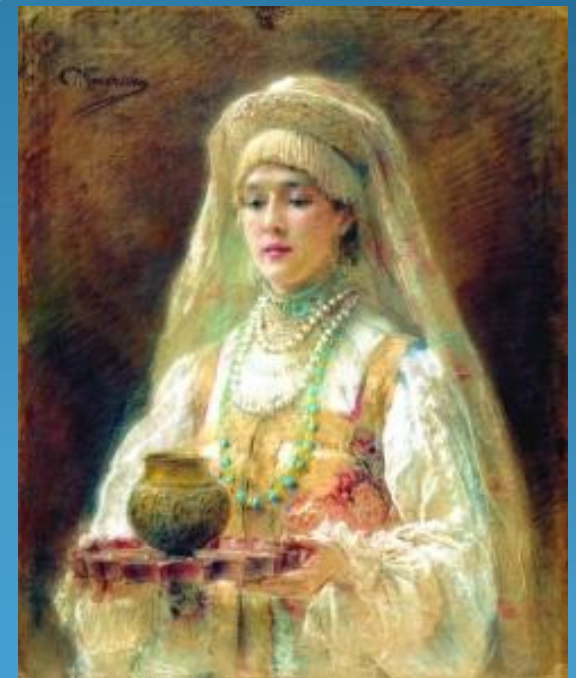


# Mead

If's good enough for Zeus and Thor  
It's good enough for me



**By Rick Cockcroft**  
BBG Member  
AHA Member  
Exeriented BJCP Beer Judge  
(non certified)  
Guilford County  
Beekeepers member  
NC Beekeepers Member



**A Goblet of Mead**  
by Konstantin Makovsky

# Wine



- Wine is an alcoholic drink made from fermented grape juice (*Vitis vinifera*), fruit juice or other plant juice. Mead has been most popular in areas that are unfriendly to grape cultivation

# Mead

- Mead is the fermented solution of honey and water or other juice which produces an alcoholic beverage. The roots of the word are shared by Sanskrit and Greek meaning Honey Wine.



# Mead



- Earliest archaeological evidence of production of mead is about 2000 BC
- However pottery vessels around 9000 BC have shown evidence of Honey and fermentation

# Mead



- Battleground Brewers Guild has a few expert Mead makers
- Dennis Keeton has been Carolinas Mead Maker of the year twice – and also has had National recognition
- Tim Daniel many Meads and awards
- Derick and Scarlett – many many Meads and ribbons

# Mead



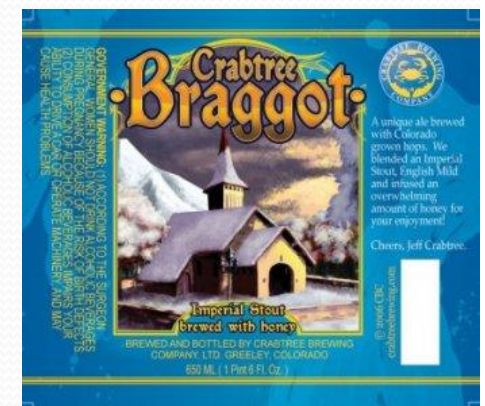
- The ancient Greeks called it ambrosia, the nectar of the Gods. Honey is a natural sugar and it is likely that mead was the first alcoholic beverage known to man. As early as 9,000BCE



# Mead



- Examples of Mead
- Sack-sweet mead
- Pyement-honey/grape
- Cyser-honey/apple
- Melomel-honey/fruit
- Braggot-honey/malt/hops
- Capsicumel-honey/chile peppers
- Metheglin- Honey spices or herbs
- Mulled Mead – Warmed by plunging a red hot poker into it









# Mead



- Desirable Honeys
- Tupulo
- Orange Blossom
- Mesquite
- Sourwood
- Clover
- Alfalfa

# Mead



- Specific Gravity
- OG up to 1.140
  
- Dry Mead 0.990-1.006
- Medium 1.012-1.015
- Sweet 1.012-1.020
- Dessert 1.020+



# Mead



- Yeasts
- Wild cultures
- Lallemand
- Lalvin
- Red Star
- Wyeast
- White Labs
- Vierka



# Mead

- Equipment
- Santiser (Bleach, Starsan)
- Large Pot
- 2x Carbouys
- Vapor lock (Bubbler)
- Large Funnel
- Racking cane or siphon
- Candy or Digital thermometer
- Hydrometer (to measure specific Gravity)
- Bottles



# Mead



- Methods
- As simple as adding Honey water and fruit etc into a jug and adding some yeast



# Mead



- Methods
- In detail : Sterilise all equipment first
- Mix honey and small amount of water and pasturise at 160 deg for 10 minutes to kill natural flora / yeasts
- Add to a sanitised carbouy , and add water to expected volume with sterilised water
- Prepare Yeast and add to Carbouy AFTER temp falls below 80 deg
- Add vapor lock and put some sterilised water into it
- Put in dark cool to cold room or best Temperature controlled fermenting space ( 60-72 deg F)
- Rack off into clean Carbouy when Mead clears (3-4months)

# Basic Mead Making

University of Minnesota Instructional Poster #158, Gary S. Reuter, Department of Entomology  
This is one method. There are many more methods and recipes.



1. Equipment needed: 2-Carboys, vapor lock & cork, siphon hose, racking cane with bottom cap, sauce pan, candy thermometer, funnel, ladle, bottles and labels.  
Ingredients: Honey, yeast, Fermaid K.



2. Honey and yeast are the two main things that effect the taste of your mead. Try different varieties of honeys as well as different yeast. Wildflower honey with Cole des Blancs yeast is a good start.

Recipes	
1 Gallon	3 pounds honey 1 Pkg. Yeast Fermaid K 3 quarts water
5 Gallon	15 pounds honey 2 Pkg. Yeast Fermaid K 4 gallons water

3. Typical batch sizes are 1 or 5 gallon. Obtain glass carboys to hold the size of the batch you want to make.  
In the following descriptions the 1 gallon amounts will be given in text and the 5 gallon amounts will be in [ ].



4. Sterilize all equipment before use. Use a sterilizing agent from a wine supply store or household bleach. Follow directions on product.  
If water is not sterile, boil first then cool. Do not use distilled water.



5. Stir 3# [15#] of honey with 2 cups [2 quarts] water in sauce pan and heat to 160°F. Remove from heat and let cool for 15 minutes.  
Put 1 quart [1 gallon] cool water in carboy.



6. Pour honey & water mixture slowly into the carboy. Add cold water to bring level to 1 gallon [5 gallons].



7. Put 1 or 2 teaspoons of water in the vapor lock and put it on the carboy and wait until temperature falls below 80°F.



8. Add Fermaid K (or combination of yeast energizer and yeast nutrient) according to package directions. Shake vigorously then put vapor lock back on.



9. Prepare yeast. Have 1/4 cup of water at 100-105°F. Sprinkle yeast on top and let set undisturbed for 15 minutes. Then stir. For best results when using more than 1 package, do them separately.



10. Pitch the yeast. Remove the vapor lock and pour the prepared yeast into the carboy. Replace the vapor lock.



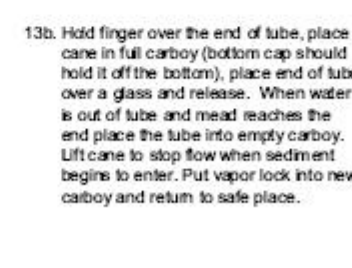
11. Put the carboy in a safe place (where it won't get broken) at cool room temp (60°F - 75°F). Within 48 hours there will be bubbles coming from the vapor lock. This means the yeast is working.



12. When bubbling stops and sediment appears on the bottom (1-3 months) you should rack the mead. This is the process of siphoning the mead off the top into a clean carboy leaving the sediment behind.



13a. Place the full carboy on the counter. Place the empty sterile carboy on a chair. Sterilize siphon tube and racking cane and fill with water.



13b. Hold finger over the end of tube, place cane in full carboy (bottom cap should hold it off the bottom), place end of tube over a glass and release. When water is out of tube and mead reaches the end place the tube into empty carboy. Lift cane to stop flow when sediment begins to enter. Put vapor lock into new carboy and return to safe place.

14. When sediment appears again (2 weeks) rack the mead again. Continue this until no more sediment appears. Rack one more time into carboy then in 2 weeks you can rack into bottles and label.



15. You can taste your mead at any point along the way. Do not be disappointed if it does not taste great. Mead will usually take at least a year to be drinkable and up to 5 years to be good.



# David's Orange Plum Mead

6 pounds local honey

10 ounces Plum Jam

2.5 Gallons of water

1/2 Cup Orange Marmalade

Heat the water to a boil, turn off, add honey and fruit,  
cool to pitching temperature

Pitch Wyeast Dry Mead Yeast

OG 1.10

FG 1.00

No yeast nutrients, tannins or acid blend

I did use some pectin enzyme to clear

# Starrlight Mulled Apple Cyser (Mead) Makes 6 gallons

## AHA 2007 Mead Day Recipe

O.G. = ~1.120

F.G. = 1.014

Ingredients:

16 lbs Wildflower Honey

5 gal Apple Cider\* - no preservatives, sulfites

4 Tbsp Cinnamon, ground

1 Tbsp Clove, ground

2 Tbsp Allspice, ground

2 Tbsp Nutmeg, ground

2 Tbsp Orange peel, dried

6 seeds Anise (optional)

1 tsp Yeast Nutrient (DAP - diammonium phosphate)

Potassium Sorbate (optional)

10 g (2 packages) Lalvin Narbonne Yeast (71B-1122)

## Pyement (Mike Lozano)

The basic idea is to take the wine, split the batch in half, then do half as a wine, following the kit instructions (but halving all the ingredient amounts) and using the remaining juice to make the pyment(using 5/6th of all the ingredient amounts). You follow the kit recipe as exactly as you can for both, but using the RC-212 yeast for the pyment and the yeast that came with the kit for the wine. Here's what you need to know:>>

1. Mix the full 6 gallons of wine per kit instruction up to the point where you would normally add the yeast and stop.>
2. Syphon 3 gallons out into a 5-gallon carboy. This will be your wine, and continue as per the kit instructions, adjusting for 3 gallons.>
3. Take a gravity reading of the remaining juice.>
4. Calculate the correct mix of 3 gallons of juice, with honey and water, to reach your pyment intended OG. My OG target was 1.120, and I think I used 9lbs of honey and water to 5 gallons.>
5. Mix the honey and water in with the juice thoroughly>
6. Pitch yeast per normal instructions and follow the kit recipe, adjusting for 5 gallons.>

# Peach Ginger Melomel

12 lbs of Forsyth County Wild Flower honey

3 Gallons of water(to make 5 gallons)

2 tsp yeast nutrient

2.5 tsp pectinase

5 lbs frozen peaches

2 oz peeled and mashed ginger root (soaked 24 hours in sulfiting agent)

10 grams of Lalvin K1-V1116(Montpellier) yeast( a white or fruit wine yeast)

Target Original gravity 1.100-1.120

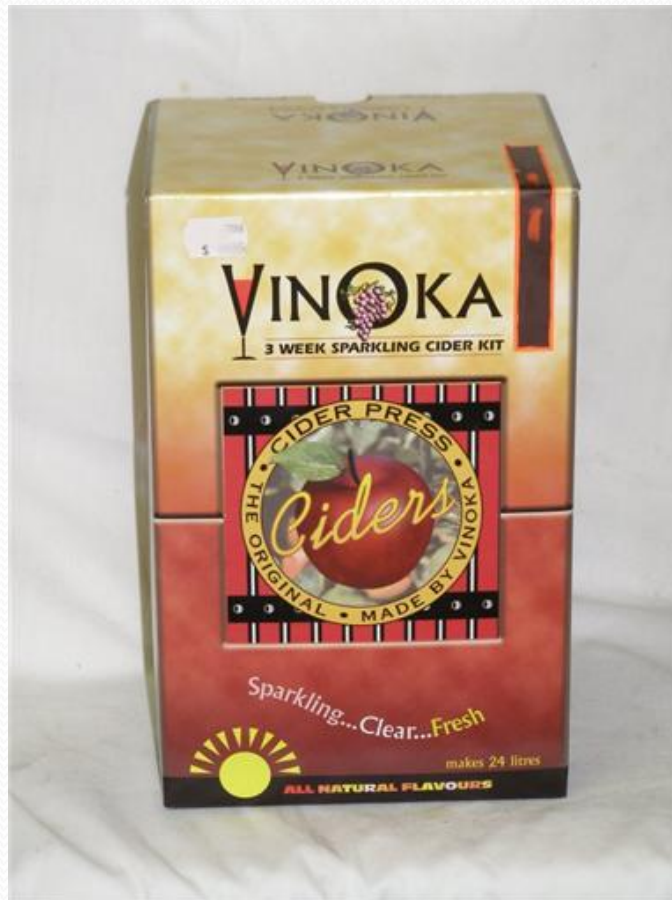
Target Final gravity 1.006-1.010

# Mead



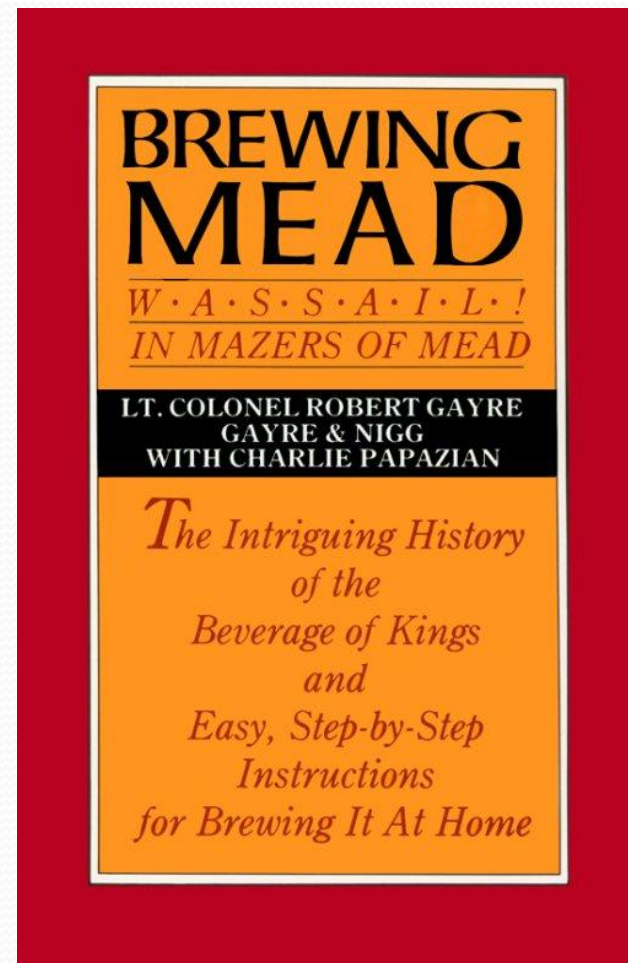
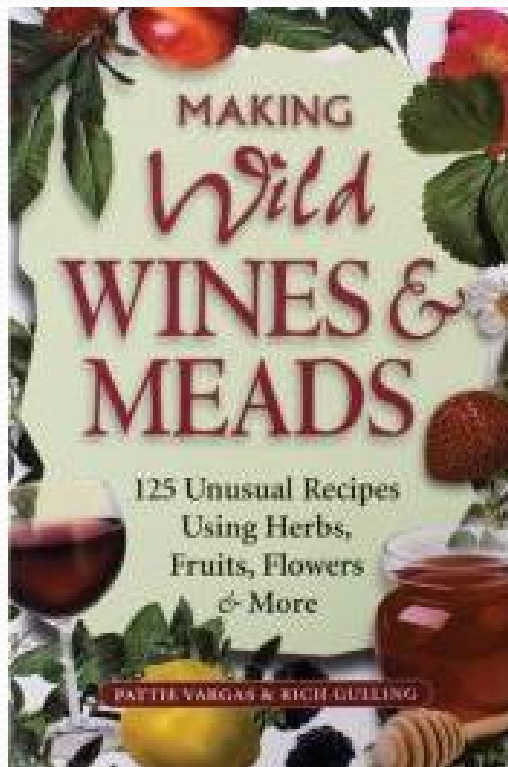
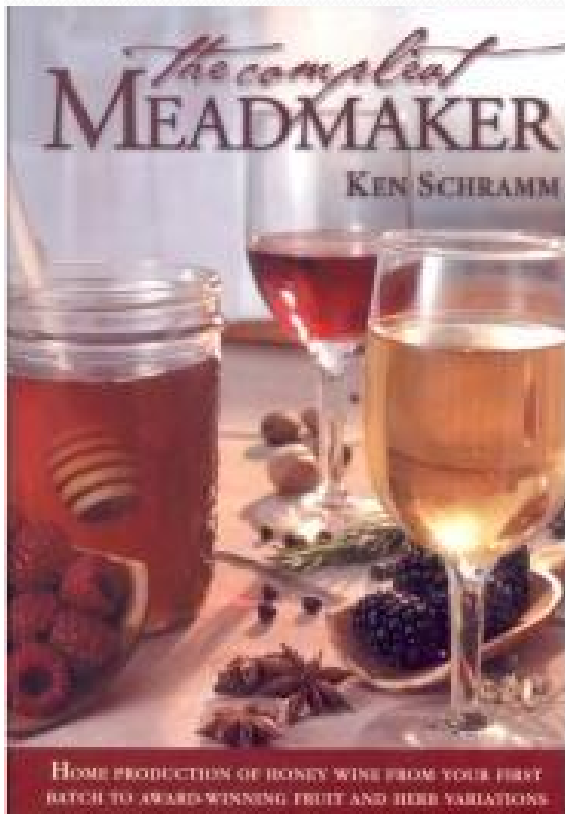
- Additives
- Sulfites
- Yeast Nutrient
- Yeast energizer
- Oxygen/Aeration
- pH management 3.7-4.6  
Acid blend, NaOH, Chalk, etc
- Yeast inhibitors/Sorbates
- Finings
- Sweeteners

# Mead



- **Dennis Keaton**
- Specialty CiderCider Press Kit plus 4.5lb clover honey
- Started 5/29/09
- OG: 1.064 FG:1.010
- Yeast: Red Star Cote des Blancs
- Racked 6/06/09 sorbate and sulphite added
- Wine conditioner 2 oz on 7/02/09
- force carbonated on 7/11/09
- bottled on 7/12/09
- Produced: 50x 12 oz bottles

# Books



Lastly, in my search for mead information, I kept coming across ads for chain mail and peasant pants, and figured out that for some reason mead seems to be unfairly associated with Renaissance fairs. This gives us an excuse to conclude this ppt with an image from the Texas Renaissance fair:





## Resources

### **The Compleat Meadmaker by Ken Schramm**

[www.buckshoalsvineyards.com](http://www.buckshoalsvineyards.com)

[www.citybeverage.com](http://www.citybeverage.com)

[www.foxhillmead.com](http://www.foxhillmead.com)

[www.beertown.org/events/meadday/index.html](http://www.beertown.org/events/meadday/index.html)

[www.redstonemeadery.com](http://www.redstonemeadery.com)

[www.blacksnakemeadery.com](http://www.blacksnakemeadery.com)

[www.gotmead.com](http://www.gotmead.com) (Active Forum)

[www.brewboard.com](http://www.brewboard.com) (Active Forum)

[www.northernbrewer.com](http://www.northernbrewer.com) (Active Forum)

[www.stormthecastle.com](http://www.stormthecastle.com) (you tube like videos)

[www.eckraus.com](http://www.eckraus.com) (Home wine making supplies)