- What is mead?
- -Mead is an alcoholic beverage produced from fermenting honey and water.
- -May also be made with grain mash and or fruit, spice, or hops.
- Can range usually from 8%-18% abv
- Can be dry, sparkling, semit-sweet – sweet
- Can be fermented with ale yeast or wine yeast, but traditionally “Honey Wine” and mead are two different animals.....

History

- Mead is regarded as the Ancestor of all fermented drinks. It has played an important role in many civilizations. The earliest evidence of mead dates back to 2000 B.C. We know this from the remains found in clay pots.
- The earliest surviving description of mead comes from 'The Hymns Of Rigveda, a sacred book of the Vedic Religeon and later Hinduism.
- It was said to be the preferred drink during the “Golden Age” of Greece

- Aristotle and Pliny The Elder discussed mead in their respective works, The bard Taliesin wrote the “Song of Mead”, the legendary drinking, feasting, and boasting of warriors. It is mentioned in the Old English Poem Beowulf, Monastaries throughout history have made mead. Tolkien mentions mead in his works. In the 2001 novel American Gods. In many a popular video game (World Of Warcraft amongst them)

- You've heard the term Honeymoon? One belief on it's origin derives from a traditional European practice of supplying a newly married couple with enough mead for a month to ensure happiness and fertillity.

Nowadays.....

- Mead can be found with all sorts of additives, anything from maple syrup, to marshmallow, toffee, chili peppers, and so on.
- Every year there are several events for Mead in the US, Mazer Cup International Mead Competition and Tasting Event (Colorado), Real Ale Festival (Chicago), and Woodbridge International Mead Festival, to name a few.

Making

- Types of Mead or alcoholic honey
- Sack Mead – High proof, sweet
- Melomel- mead fermented or flavored with fruit
- Cyser- fermented with or flavored by apples or apple juice
- Pyment- with grapes or grape juice
- Metheglin- fermented or flavored with spices
- Braggot- Beer with honey or mead with malt grain

- Bochet or Burnt mead-burnt or charred character, sometimes imparted by boiling and caramelizing the honey before adding any water to the must
- Clionomel-mixed with egg white for medicinal purposes
- Lactomel-experimental product created by some home mead makers using milk as a source of fermentable sugar.
- And the list goes on and on....

How much to use?

- Traditional mead is made with between 15-20lbs of honey per five gallons, a more modern style uses 7 lbs of honey, ferment quicker (Weeks vs. months).
- Personally..... I use about 13-18 (Usually more on the 16 side) with good results.
- The more honey you add, several things change. The sweetness of course, The abv, and the chance that the honey and water will seperate (Is bad!)

What to add? Be creative!

- For my personal reserve, I usually use a combination of honey, water, and fruit. You can add sugar, spice, hops, syrup, molasses, chili peppers, any sort of spice or sugar content. Think of it like baking I suppose. Don't add everything. A good recipe may take a little experimentation to get down the numbers just right, but this is part of the fun.
- There are many guides and recipes online.

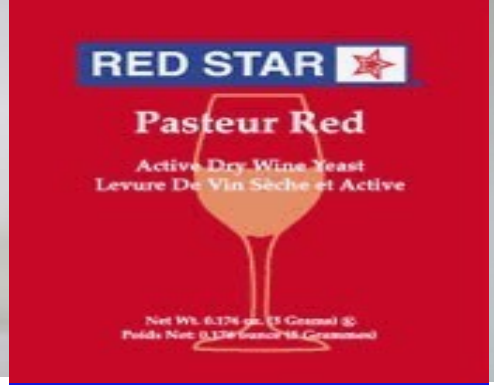
- I would caution against extracts! I have not had great luck with them. If you want to use vanilla, why not get vanilla beans? Madagascar beans will be sweeter and smoother vs. Mexican which will be smokier in flavor. Mint? Add mint leaves while it ferments, and so on.
- I would also caution against dextrose. Raw sugar (if properly dissolved), or cane, agave extract ect,

What you'll need....

- Ingredients (I'll provide a sample recipe later)
- 5 gallon brew bucket
- 5 gallon carboy
- Airlock(s) / Bungs for carboys
- Microwavable pitcher **Recommended not vital**
- **Wine theif or siphon to transfer**
- **Bottles....**

What you'll need....

- Ingredients + Yeast (Recommend Champagne Yeast for Higher yields, ale yeast will not keep as long, wine yeast is fine as well)
- Mixing spoon / Drill attatchment
- Corker (recommended) or Capper
- Bentonite + Metabisulfate (Recommended but only with filtering)
- Gravimeter (Recommended)
- Quick Clean (Chitine Recommended)


RED STAR
Pasteur Red
Active Dry Wine Yeast
Levure De Vin Sèche et Active


420
360
300
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180
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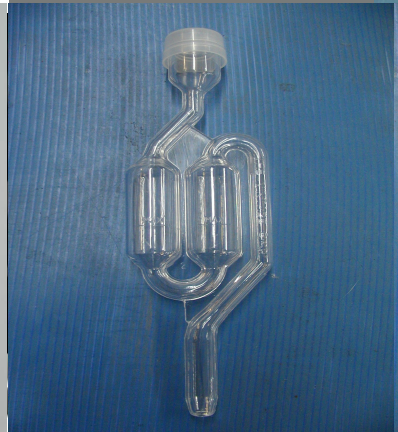
ml


HUIXIA SUPPLY Co., LIMITED


TRUE BREW



- What is Chitine?
- Chitine comes from the swim bladders of fish believe it or not. However it is amazing at clearing up wine / mead / and beer for homebrewing! You can as well use a bit of irish moss which well help as well with clarifying. For best results I recommend bentonite + Chitine, but this requires filtration.

What you'll need to do...

- CLEANLINESS! Sanitize and rinse everything. Bleach diluted in water works well, provided you rinse, rinse, rinse. Otherwise a commercial sanitizer. Bacteria and wild yeast cultures can ruin a lot of work and waiting. No one wants to wait a month (or several depending on the ammount of honey, desired sweetness ect.) only to find out that the batch has turned. Clean everything! Bottles, buckets, carboys, utensils.

What you'll need to do...

- After everything is cleaned / sanitized, if you're honey is filtered well you're good to start. Otherwise (and actually it isn't a bad process to do this anyway if you're not using honey that meets state requirements for filtering, and even then you can still clean it up a bit by.....) Boiling the honey in a cooking pot with water. Skim off any sediment, foam, excess bee parts that rise to the surface. Gas stoves work well, Elec, not so good.....

- Bentonite is a type of clay. It helps filter the wine / mead by dragging the sediment to the bottom of the fermenter. However it's best you have a good method of filtering if you're going to use it, as you can end up with bits of clay in the mead otherwise. Some brew buckets have taps on the bottom which helps reduce sediment, but still is always better to filter if possible. If you have a way to filter, mix the bentonite with water, and add to the mix before anything else.

- Using a pitcher you can either microwave the water, or use a hot plate pitcher to heat the water (Be careful if using honey stored in plastic!). The hot water will loosen the honey very easily, removing it from the pitcher.
- Add the honey to your primary fermenter or brew bucket.
- Top up with warm to cool water, stirring as you do so. Leave enough room for any additives (fruit, spice, ect.) you wish to add.

- Add additives. If adding fruit, ensure it is cleaned very well! You can boil in a bit of water to kill any wild yeast / bacteria. I normally will halve / quarter depending on what type of fruit I am using. You can also juice. Leaving fruit with the batch as it ferments not only imparts flavors, but also gives the yeast somewhere to culture, honey is very viscous and it helps it to work through it.
- Stir very well to ensure that water, honey, and additives are mixed THOUROUGHLY...

- Before adding your yeast, if you have a wine thief and gravometer, take and record your initial gravity. Do not add yeast until batch is about room temprature.

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- Ensure that the batch is not too hot before you add the yeast. Powdered wine or champagne yeast has worked fine for me in the past. If using liquid yeast, you can just add to the mixture, the same may be done with dry yeast, however for best results: otherwise, using your wine theif or siphon, add a little bit of the must to a container with the yeast, and shake until you can see the CO2 bubbles forming. Add to the primary frementer or brew bucket and seal completely, adding airlock.

Fermenting Temperatures

- Primary Fermentation Temperatures:
- • Ales: 62°F – 75°F (17°C – 24°C)
- • Lagers: 46°F – 58°F (8°C – 14°C)
- • Wheat and Belgian styles: 62°F – 85°F (17°C – 29°C)
- Red Wines
- Red wines: 70° and 85°F (21-30°C).
- White wines: 45°and 60°F (7-15°C).
- Champagne: 59-86 F

What Is Yeast?

- Yeast, a microscopic, one-celled organism belonging to the group of organisms called fungi.
- Wild yeast is in the air around us, in nature, naturally occuring (Open Air Fermentation)
-

PACMAN DEMONSTRATES YEAST FERMENTATION

CO_2

(and alcohol, and other gases)

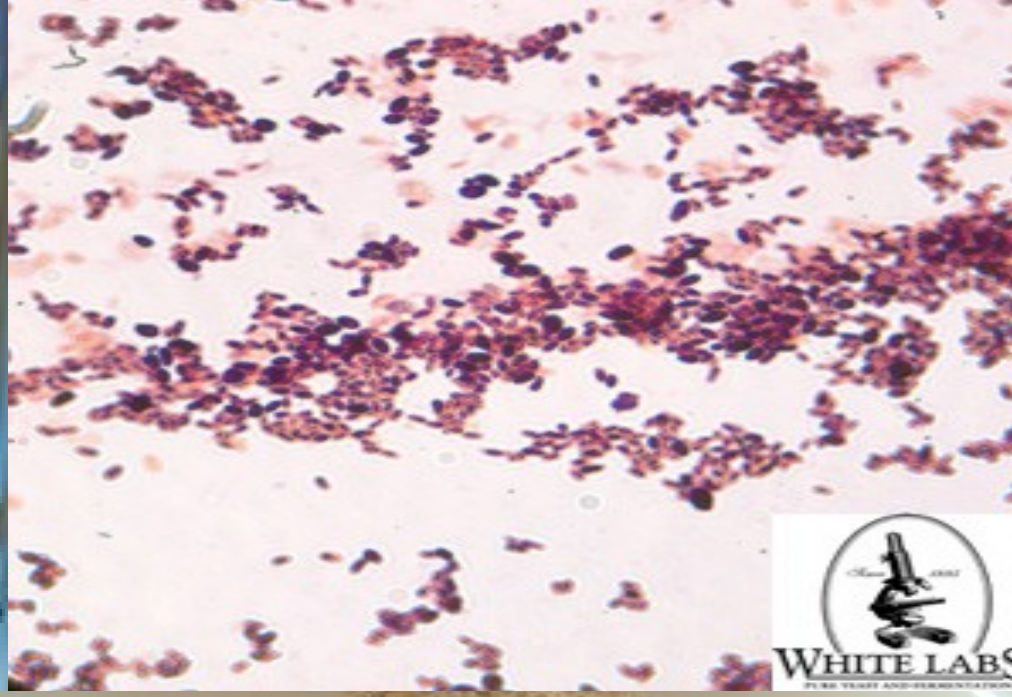
Yeast

Sugars

(sucrose)

How Yeast Works

- Yeast enzymes chemically break down the sugars into products that the cell can use. Other yeast enzymes can make simple sugars out of disaccharides (double sugars), which are found in certain organisms.
- The breaking down of sugars, or fermentation, produces alcohol and carbon dioxide as by-products. Fermentation turns fruit juices into wine and helps turn wort (diluted grain mash) into beer or whiskey.


WHITE LABS

- The waiting is the hardest part.....

  You want to store the mead in a cool place, OUT OF SUNLIGHT!! closets normally work well. You don't want the mead to get too hot or too cold, so keeping in a closet usually works well, away from any water heaters, boilers, radiators, ect.
- Taste your batch! You can taste the batch every few weeks. The bubbling will slow the longer it goes, and the gravity will rise. It will depend on the amount of sugar, and honey

- That you use that will determine the time for fermentation.
- Do not pull too early. Wait until bubbling has stopped. No one wants to clean up that mess! You can pull sooner if you use sulfites and filter.
- When tasting, do not leave open. Bacteria and wild yeast will still cause odd flavors and possibly ruin a batch.
- If using Quick Clean, add exactly one week before filtering / bottling.

- After a week or two (the sooner the better) you can transfer the batch with a siphon to your secondary fermenter. (Carboys work well and impart no flavor to the batch).
- When you are satisfied that the fermentation has stopped. You can transfer back into the cleaned brew bucket for bottling. If you have a wine / micron filter, this is the time to use it, and if you wish to use sulfites, as well now is the time. A gravimeter will help greatly with this, and you can track the yeasts progress, every

A Note On Filtering

- There are different ways to filter a batch, but if you have seeds / sediment floating in it you need to filter. Commercial machines are the best, but homebrew sites will recommend everything from nylon stockings to less expensive siphon filterers.

  But find what works best for you.

- Time you taste.
- Bottle!
- Ideally you wish to age the mead for a while before drinking. This is not necessary, but especially if using sulfites, you want to wait about six weeks before drinking. Store the mead in a cool place. Refigerators work great! If you're not using sulfites, it is better not to let the bottles get warm. Keep and serve cold to eliminate the possibility of

  “Bottle Rockets”

How To Find ABV

- http://www.rooftopbrew.net/abv.php
- **http://www.brewersfriend.com/abv-calculator/**
- **ABV = OG-FG / 7.6. So, 40-10 / 7.6 = 3.94%**

Tedley P's Sample Recipe: Ume' Oni (or Plum Demon)

- 16lbs honey
- Several lbs fresh plums, Halved and juiced
- 1 Madacasgar Vanilla Bean
- Champagne Yeast
- Bentonite
- Metabisulfate and Chitine (During filtration)

If in doubt....

- The internet is an incredible resource for learning just about anything. Here are some websites that offer video / txt instructions Just a quick search on youtube or Metacafe will reveal a ton of results!
- http://www.stormthecastle.com/mead/index.htm
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