

Mead Basics

This guide will take you through the basics of making 1 gallon of traditional dry mead.

REQUIRED EQUIPMENT

- 2 Gallon Plastic Primary Fermenter
- 1 Gallon Glass Secondary Fermenter
- Airlock with Stopper
- Hydrometer with Test Jar
- Thermometer*
- Wine Thief/ Turkey Baster
- Spoon
- Siphon/Racking Cane with Tubing
- Sanitizer/Cleaner
 - B-Brite Cleaner/OneStep – Cleaner
 - StarSan/Iodophor – Sanitizer
- Bottles and Caps/Corks
- Bottling Wand

INGREDIENTS

- 1 Gallon Spring Water
 - 2.5lbs of Local Honey – Some honey ideas:
 - Wild Flower Honey
 - Orange Blossom
 - Clover Honey
 - Yeast
 - EC-1118, D-47, 71B-1122, Red Star Premier Cuvee, Red Star Pasteur Blanc
 - Campden Tablets (Potassium Metabisulfite – Needed if back sweetening)*
 - Potassium Sorbate (Needed if back sweetening)*
- (Avoid the little bear as some mass produced honey is cut with corn sugar.)
- Yeast Nutrient
 - Yeast Starter

*Optional Product

CLEANING, SANITATION AND HONEY PREPARATION

Prepping for Fermentation

Mead is one of humanity's oldest fermented beverage. The basic concept is to add honey, water, and yeast nutrient to get to make "must". Must is the unfermented honey mixture that we add yeast to and leave to ferment into mead. However mead does take a long time to mature there is a stark difference between a mead aged for 6 months and one aged for 2 years. Young mead often will taste very hot and unpleasant and will only get better with time. It is often best to plan your brew schedule accordingly.

Some recipes offer "fast" mead techniques, we will not be discussing those methods here. We want to build a good understanding of the fermentation process. We do encourage the use of local honey, yeast meant for the fermentation of wine or mead and proper yeast nutrient. Many older recipes use raisins for their "yeast nutrient" however raisins are now treated with Potassium Sorbate which is a yeast inhibitor. Yeast health is very important when making mead and ensuring you have enough healthy yeast cells to ferment the strongest of mead crucial. Using a yeast starter nutrient is a good way to "wake up" your yeast if you are using a dehydrated yeast.

Prepping the Equipment for Primary Fermentation

Anytime you are fermenting sanitation should be the most important step in the process. We are trying to grow good yeast and keep the wild yeasts out. Ensure that anything that comes in contact with your must is sanitized. Taking care of these steps first will help you produce fantastic meads. Always remember that you cannot sanitize what is not clean. Avoid abrasive scrubbers on the bucket or any chlorine cleaners these can damage the plastic or impart off flavors later on.

Clean and Sanitize – Follow instructions on cleaner and sanitizer for correct dosing rates.

- 2 Gallon Primary Fermenter
- Airlock
- Spoon

PRIMARY FERMENTATION

Equipment/Ingredients Needed for Primary

In this example recipe we will be making a traditional dry mead

- 2 Gallon Plastic Primary Fermenter
- Airlock with Stopper
- Hydrometer with Test Jar
- Thermometer
- Wine Thief/ Turkey Baster
- 1 Gallon Spring Water
- 2.5lbs Honey
- Yeast Nutrient
- Yeast Starter Nutrient
- Spoon

Example Recipe

1 Gallon Spring Water
2.5lbs Honey
Mead Yeast of Choice

1 tsp Yeast Nutrient
1 tsp Yeast Starter Nutrient

Getting it Together

1. Place the honey container in warm water to help loosen up the honey making it easier to pour later.
2. In a sanitized glass add 1 tsp yeast starter to 6-8oz of lukewarm spring water and stir until combined. Once combined add yeast and set aside covered loosely with tin foil.
3. Add ½ gallon of room temperature(68°F-70°F) water and 1tsp yeast nutrient to the fermenter, stir vigorously to combine. *Mixing in oxygen is very good at these early stages but not good in the later stages.
4. Mix in honey and continue to stir vigorously until thoroughly combined, finish adding the remaining gallon of water. **Take a gravity reading before proceeding any further.**

NOTE: At this point taking a gravity reading is important. Ensure the specific gravity of the must is 1.086-1.100. Honey's sugar content can vary so expect some variation add more or less honey as needed.

6. Give a final stir of the must ensuring the ingredients are thoroughly mixed, sprinkle the yeast packet in the must.
7. Place the lid and airlock back on the bucket. Ensure that the airlock has water or sanitation solution in it.
8. Keep the fermenter in a cool location the fermentation temperature should be 68°-74°.
9. 48 hours into fermentation carefully open the fermenter, using a sanitized spoon slowly stir the must, this will release the co2 trapped in the must. After stirring for about 2 minutes you can slowly add 1 tsp of yeast nutrient. Sanitize the lid and place it back on the fermenter
10. Primary fermentation should take 14-21days or until your specific gravity is 1.000-.998.

SECONDARY FERMENTATION

3 weeks after primary fermentation we can move to secondary. This step will help the mead clarify while also getting it off of the yeast and sediment. Fermentation will continue during secondary, it is important that you start to reduce the head space in the fermenter, over exposure to oxygen will lead to spoilage.

Equipment Needed for Secondary Fermentation

- 1 Gallon Glass Secondary
- Airlock with Stopper
- Hydrometer with Test Jar
- Siphon/Racking Cane with Tubing
- Sanitizer/Cleaner

Cleaning and sanitizing is still very important in these later steps, when in doubt **sanitize**.

The next steps are referred to as "**racking**" this is the process of moving the mead out of one fermenter and into another. This can be repeated multiple times over the course of fermentation and post fermentation to aid in clarification.

Starting the Siphon for Racking Cane Users: Connect the tubing to your racking cane, the tubing should connect to the shorter curved end of the racking cane. Fill your racking cane and tubing with clean water or Sanitizer (if you are using StarSan). Place thumb over one end end of the tubing and place the racking cane in the mead. Ensure the exit of the tubing is below the mead, when you release your thumb a siphon is created, run out the sanitizer and put your thumb back over the exit. Now move the tubing to the secondary fermenter and begin filling from the bottom up. Avoid splashing if possible.

SECONDARY FERMENTATION *CONTINUED*

1. Remove the airlock and lid from your primary fermenter and set aside.
2. Raise the primary fermenter so it sits above the secondary, this will allow the siphon to transfer the mead from the primary fermenter to the secondary using gravity.
3. Place your racking cane or siphon in the mead, start the siphon and transfer from the primary to the secondary fermenter. Try to keep splashing to a minimum and rest the tubing on the bottom of the secondary fermenter.

NOTE: Avoid allowing the racking cane/siphon from touching the bottom of the primary as this will stir up the sediment on the bottom.

4. As the primary fermenter empties you will need to tilt it a bit to get the remaining mead. Do this carefully to not disturb the sediment. If you get some sediment in the secondary it is okay however it might take a few extra racks to clear completely.
5. Plug up the fermenter with the stopper and airlock let the mead continue to ferment for another week check the specific gravity should be below 1.000.
6. After another 2 weeks in secondary the mead should be pretty clear. If the mead is below 1.000 you can move on to bench trials for flavor correction. If the mead is still cloudy you can rack again and let it continue to age until it is clear.
7. If the mead is clear and you like the characteristics you can move on to bottling.

BENCH TRIALS

Bench trials are used to adjust flavor profiles in a finished mead. The following can be used when experimenting with flavors in mead. Once you have achieved a flavor profile you like you may bottle and age the mead.

- **Wine Tannin** – Used to add a pleasant dry flavor to the mead and temper sharp flavors. You can also use oak chips or staves to bring out balance with the acids.
- **Acid Blend** – This is a blend of Malic, Tartaric, and Citric acid. Used at the start of fermentation, but can be used later for corrections. If the acid levels are too low then a mead can taste one dimensional and bland.
- **Back Sweetening** – The method of adding sugars after fermentation, usually more honey. This can only be done if potassium sorbate has been added to the mead. It is important you stabilize the mead before adding additional sugars.

NOTE: Some of the best ways to add honey character is to stabilize and make a honey mixture and add back into the mead.

- **Fruit and Spices** – Spices like ginger, cinnamon or fruits like lemon, cranberry can be added. These will add complexity but it is important to stabilize mead if you are using any additional sugars so that re-fermentation does not occur.

Stabilizing Mead: To stabilize mead use ½ tsp Potassium Sorbate and 1 Campden tablet per gallon of mead.

BOTTLING THE MEAD

Equipment Needed for Bottling

- Siphon/Racking Cane with Tubing
 - Sanitizer/Cleaner
 - Bottles and Caps/Corks
 - Bottling Wand
1. Clean and sanitize all bottles and equipment. Corks should be soaked in sanitizer for 15mins before use.
 2. Securely fit the bottling wand on the tubing and connect the other end of tubing to the racking cane.
 3. Start a siphon just like you did in the racking process.
 4. Fill each bottle by depressing the bottling wand against the bottom of the bottle. Fill all the way to the top of the bottle opening. The bottling wand is spring loaded and will seal when not pressed, when the bottling wand is removed it will displace the correct volume of liquid.
 5. Cork or cap each bottle and set aside.

Note About Bottle Shock: Bottle shock is a temporary condition where flavors are muted or disjointed. Most mead benefits from bottle conditioning, this gives the mead time to mellow any harsh flavors and have the flavors meld together. It is recommended that most mead be aged for another 6 months or longer.