

HOMEBREWING CRAFT MEAD

Uniform heating and insulating dissolves honey crystals

Application

Homebrewing beer and fermenting wine are popular hobbies. In recent years, an increase in commercial meads has piqued the interest in homebrewers. Honey wine, also known as mead, is brewed, and fermented like beer, though at much lower temperatures. There are nearly endless recipes and combinations. Like wine, mead may be dry or sweet depending on the amount of honey, other ingredients used, and even the processing itself. Beer, wine, and mead require heating at some point during the processing. Heat is especially important when making mead, as the honey may need to be decrystallized, but must also be heated to allow for better mixing with the other ingredients. Decrystallizing raw honey, then using heat for processing, requires more exact temperatures to ensure the natural properties are maintained and yeast propagates efficiently.

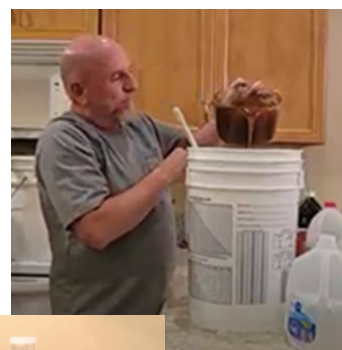
Solution

At room temperature, honey is thick and difficult to mix. Over time, it starts to crystallize and may solidify. The honey must be heated to facilitate dissolving it in the water, tea, or juice. BriskHeat makes silicone band heaters with watt densities of 1.25 and 5.0 watts/in². A DHLS10, high-watt, low temperature model is selected to decrystallized quickly without risking damage to the 5-gallon pail. This was used with an SDC temperature controller and a FGDIW5V Wet-Area Insulator to reduce the honey's viscosity. The SDC was set to 105°F (40°C) to maintain the properties of the raw honey. If the honey is not raw, it can be heated to 120°F (49°C). Without using a temperature controller such as the SDC, adjust the rotary dial to approximately 3/4 full power. The insulator assists the honey to be heated more quickly and efficiently than the heater alone. The honey needs to be stirred to distribute the heat. Two heaters may be used if the bucket is full. After fully decrystallized, the heaters may be turned off for the honey to cool slightly. If the honey will not be used for a few more days, leaving the heat between 90 to 100°F (32 to 38°C) will prevent recrystallization.

Caution: Never apply heat above the level of the fluid.

It is preferable to have heaters around the mixing bucket to maintain the temperature about 90°F (32°C) for adding the yeast. Ambient temperature to slightly heated water is placed in a fermentation bucket and the heater plugged in. Warm honey is added while stirring constantly. Additional water to be added can be heated or cooled to help maintain the temperature. After all spices and fruit are added, the temperature should be checked and adjusted to 85°F to 95°F (29°C to 35°C). Yeast and yeast nutrients can be added and mixed well when the mead is in the correct temperature range. After sealing the bucket and adding an airlock, the bucket can be placed in a dark area for fermentation.

In most cases, further heating is not required as the optimum fermentation temperature for mead is 65°F to 77°F (18°C to 25°C). If the bucket will be placed in a cold basement, a rug, towel, or mat should be under the bucket. The wet-area insulator can be used to keep the brew from becoming too cold and ceasing fermentation.



Industries

Agriculture/Farming
Consumer/Residential
Food & Beverage Processing

Types of Users

Beekeepers
Hobbyists/Homebrewers
Meadery Operators