Mead (BJCP Categories 24-26)

This month we will be covering Traditional Mead, Fruit Mead and Specialty Meads (BJCP Categories 24-26). This is probably the oldest fermented beverage in the world, and possibly the easiest to make – although tricky to get right.

Part 1: About Mead

History: Mead is probably the oldest fermented beverage in the world. If honey is sufficiently diluted with water, wild yeasts already present in the honey begin to ferment. So, it's reasonable to assume that along with consuming fermenting fruit, early humans might have consumed fermented honey. The archeological and historic record indicates that wherever there were honeybees (Eurasia and Africa) people made mead, and a piece of neolithic art depicts a woman gathering honey.

Definitions: The definitions for various types of meads are largely derived from the English and French mead-making traditions.

Ayahuasca: Amazonian native fermented drink made using wild honey.

Black Mead: An alternate name for black currant melomel (q.v.).

Braggot (AKA Bracket): a) A mead made with hopped or unhopped barley wort. b) A metheglin (q.v.) made with hops.

Capsicumel: Metheglin (q.v.) made with chili peppers.

Chouchenn: Breton (French) mead.

Classic Mead: See Traditional Mead (q.v.)

Cyser: A Melomel (q.v.) made with honey and apples.

Czwórniak: Polish mead, made with a 3: 1 ratio of water to honey.

Dwójniak: Polish strong mead, made with a 1:1 ratio of water to honey.

Great Mead: Mead intended to be aged before consumption (cf., Short Mead).

Gverc: Croatian metheglin. Also see Medovina.

Hippocras: a) Mead with spices added just before serving, sometimes served hot. b) A mead made with grapes and spices.

Hydromel: Synonymous with mead, it literally means "water-honey" in Greek. Also the French name for mead and is a cognate with the Spanish hidromiel, aquamiel, Italian idromele, Portuguese hydromel and Modern Greek "ydromeli".

iQhilika: South African native mead.

Madhu: Sanskrit term for mead.

Mead: A generic term for a honey wine or honey beer, with or without other flavorings.

Med: Ukranian mead.

Mede: Dutch mead.

Medica: Slovenian mead.

Medovina: Bulgarian, Croatian, Czech, Serbian and Slovakian word for mead. This type of mead is sold in Slovakia and the Czech Republic. Also see Gverc.

Medovukha: Russian and Eastern Slavic term for a honey-based fermented drink.

Medu: Middle and Old German term for mead.

Meis: Eritrean mead.

Melomel: A mead made with added fruit, fruit juice or fruit flavorings. Melomel made from certain fruits might have a special name (c.f. Cyser, Morat, Pyment).

Meodu: Old English term for mead.

Met: German mead.

Metheglin: A mead made with herbs and/or spices. The name comes from the Welsh word for "healing liquor," since these meads were originally used as medicines. Common flavorings include cinnamon, cloves, coriander, ginger, nutmeg, orange peel, tea and vanilla.

Mézbor: Hungarian honey wine.

Midus: Lithuanian mead.

Miòd: Polish word for mead, can indicate a variety of styles.

Mjød: Danish and Norwegian word for mead.

Mjöd: Swedish mead.

Mõdu: Estonian honey beer.

Morat (AKA Mora): A Melomel (q.v.) made with mulberries.

Mulsum: a) Strong wine with added unfermented honey. Not a true mead. b) A synonym for Melomel.

Nabidh: Arabic mead.

Omphacomel: A medieval variety of Pyment (q.v.) made with verjuice (unripe grape juice).

Oxymel: A medieval variety of mead mixed with wine vinegar.

Pitarrilla: Mayan fermented drink made from wild honey, balche tree bark and water.

Półtorak: Very strong Polish mead, made with a 2:1 ratio of honey to water.

Pyment (AKA Pyment-Claree): A melomel (q.v.) made with grapes.

Quick Mead: See Short Mead (q.v.).

Rhodomel: A metheglin made with rose hips, rose petals or rose attar (rose petal distillate).

Sack Mead: A high alcohol mead. Due to its high ABV, Sack Mead retains a large quantity of unfermented sugars and is very sweet.

Sack: a) A fortified dessert wine, such as Sherry. b) Any strong, sweetened wine. The term Sack Mead (see below) is derived from this. Sack is occasionally used as an adjective to describe strong, sweet meads of various types (e.g., "Sack Pyment").

Short Mead: Mead intended to ferment and age quickly, intended for present use. Short mead uses techniques similar to that used to produce cider, and often has some cider-like qualities.

Show Mead: See Traditional Mead (q.v.).

Straight Mead: See Traditional Mead (q.v.).

Sima: Finnish mead.

Tej: Spontaneously fermented Ethiopian mead made with gesho and possibly grain.

Traditional Mead: A mead made with just honey, often a single varietal type. Since honey does not have enough nutrients, traditional mead often has yeast nutrient and enzymes added. Sometimes a small amount of tannin or acid is added to balance the sweetness.

Trójniak: Polish mead, made with a 2:1 ratio of water to honey.

White Mead: An alternate term for a Pyment (q.v.) made with white grape juice.

Weirdomel: A name coined by some homebrewers to describe any mead made with unusual, non-traditional ingredients.

Yeyin Dvash: Hebrew word for mead.

Part 2: Mead Making Tips

This section assumes that you are a reasonably experienced brewer. If not, check the bibliography for basic mead-making information.

Honey: Honey is to mead as grapes are to wine and hops and barley are to beer. For this reason, use the best-quality, freshest honey you can find. Different varieties have different tastes, although generic "wildflower" honey packaged by a large producer will have a consistent flavor and can be used as a "base" for most mead. Ken Schramm in his book "The Complete Meadmaker" discusses varietal honeys in detail, as does the BJCP Mead Judge Exam web site.

Further information on varietal honeys is available from the National Honey Board.

Water: Moderate hardness water is preferred, but exact composition should be adjusted based on the ash content of the honey. High ash honey shouldn't me mixed with high mineral waters. Likewise, low ash water and low mineral water don't work well since the yeast needs some nutrients for health. You can adjust your water hardness using gypsum or acid. As with any other fermented beverage, you should use dechlorinated water, such as carbon-filtered, reverse osmosis or distilled water. If this isn't possible, you can remove chloramines from tap water by adding 1 campden tablet per 20 gallons of water and letting the water stand for 30 minutes. The action of the metabisulfite and the chloramines produces volatile chlorine which off-gasses.

Preparing the Must: Most recipes call for 1.5 to 5 pounds of honey per gallon. High gravity meads are more wine like, weaker meads seem more like champagne or alcoholic soda.

Do not boil your must! This is a leftover from the days when honey couldn't be properly separated from the other components of the beehive, which left a lot of waxes, proteins and other gunk in the honey. Boiling gives you a good "hot break," allowing you to skim the proteins off the surface of the boiling must, but it also drives off aromatic compounds in the honey – which are what gives mead its flavor. Different writers vary on whether you should merely pasteurize your must, mix honey and water without heating and then add sulfite, or just mix your honey and water without pasteurization or sulfiting. Everyone who writes on the topic suggests that you warm your honey to get it to flow easily.

If you're using poorly filtered raw honey, straight from the comb, then you might need to heat your must so that you can skin the wax and proteins off the top. If so, do it gently and don't let the honey come to a boil!

Sometimes a bit of citric or tartaric acid, or grape tannin, is needed to balance the sweetness and to promote yeast health. Be very sparing with such additions initially (no more than 0.5 g/L (1-3 tsp per 5 gallons). It is better to undershoot your intended acidity and then adjust it after primary fermentation is complete. No only is this because you can taste the final result, but also because honey has very little buffering capacity and a naturally low pH, so it is easy to make your must too acidic for optimal yeast health.

1) Pasteurizing. Hold your honey at 140°F in a covered pot for 20 minutes or at 150°F for 20 minutes. This is sufficient to kill wild yeasts which are your main concern. If you add 12 lbs. 80-90°F honey to 4 gallons of water at 180°F you can get a "strike temperature" right in the pasteurization range. If you have heat on under your kettle, mix thoroughly and stir frequently to prevent scorching or caramelization. Cool the must using a wort chiller to fermentation temperature, and then add your yeast.

2) Sulfiting: Warm your honey and mix it with water, then add 70 ppm sulfite (2½ Campden tablets). Remember, no more than 200 ppm sulfites total (including sulfiting at bottling time)!

3) No heating or preservatives: The theory here is that the low pH of your must will discourage bacteria, while a good starter culture of yeast will discourage any wild yeast. As long as other aspects of sanitation are rigidly observed, this seems to work.

Yeast Management: Any mead yeast will need both yeast nutrient (e.g., Fermaid-K) and yeast energizer (Lalvin Go-Ferm, Crosby & Baker Yeastex). You can make your own yeast nutrient from 8 grams Diammonium Phosphate (DAP) to 4 mg of vitamin B1; add 1-2 grams of nutrient per liter of must.

As with beer, fermentation time and flavor is improved if you make a starter and use yeast suited to the style of mead you are trying to create. Pitch twice the normal amount of yeast recommended for grape wines (0.5 g/ yeast per liter of must). If you are using dry yeast, rehydrate it for at least 15 minutes before adding it to the must. You can make a quick starter by mixing your hydrated yeast, plus yeast energizer, with an equal volume of must, then letting it sit, covered, for 1 hour. You can also make a starter as you would for beer and let the yeast work in the starter for 24 hours before pitching into the must. Finally, you can "cheat" by making a starter solution using a bottle of pasteurized fruit juice, as long as it doesn't have preservatives in it. Add a bit of yeast energizer and your yeast and let it work.

Moderate alcohol meads (up to 13% ABV) can use most wine yeasts, but there are specific mead yeasts available (e.g., Lalvin D47, Wyeast 3184 Sweet Mead Yeast). If you don't pasteurize or sulfite your must, you should select a "killer" yeast which overwhelms wild yeasts – these include Lalvin EC1118 and Pasteur Champagne. Higher alcohol meads (above 13% ABV) need champagne yeast or "turbo" yeast (e.g., Red Star Pasteur Champagne, Lalvin 1118). It is possible to ferment high gravity mead up to 13% ABV using one yeast and then use better performing yeast to finish fermentation. As with an ultra-high gravity beer, you can also "feed" honey to slowly fermenting high-gravity mead to gradually bring the ABV up. Most wine and mead yeasts prefer to work between ranges of 60-78°F, favoring the middle of the range.

As with beer, mead must needs to be properly aerated to ensure proper yeast growth.

Fermentation and Aging: Primary fermentation generally takes anywhere from 2 weeks to 3-4 months. The more active and healthy your yeast culture, and the higher the fermentation temperature, the faster the fermentation rate. You can tell that primary fermentation has ended when the yeast begins to drop clear. At that point, you can rack the honey to secondary. This is the best time to adjust the flavor. You can add more honey to add sweetness or to bring up the alcohol content, add fruit or spices, or add acids or tannin to balance sweetness. If you wish to stop fermentation, to create sweet, low-gravity mead, this is the point at which you add Potassium Sorbate. End of primary fermentation is also the point at which you can clarify the must to eliminate haze.

Haze which forms in mead is either protein haze (which can be removed with Bentonite or similar fining agent), or pectin haze due to fruit added to the must. This can be removed using pectin enzyme.

Once you have made any additions to your mead, rack it to secondary, let it sit several more months in a cool place (60-65°F) to clear, and then, if necessary, rack it again. After you've racked it to tertiary, let it age for 3-12 months. After that, it is probably ready to be bottled. Most meads take at least *at least* 1-2 years to mature, and, if properly protected from oxidization, some benefit from 4-5 years, or even up to 10 years of aging. Mead should be corked, just like wine, and the bottles stored on their sides to prevent the cork from drying out. Ideal storage temperature is 50-60°F.

Making Melomels: If you add fruit to your mead, follow the techniques for making a fruit beer. Use only good quality fruit or fresh fruit juice. If you use fresh fruit, you can either sanitize it (by soaking it in a sanitizing solution and then thoroughly rinsing it), pasteurize it (by holding it at 150-160°F for 20 minutes), or kill the wild yeast on the fruit by soaking it in a 25 ppm sulfite solution (approximately 1 Campden tablet per gallon of fruit. The danger of pasteurizing fruit is that you might set the pectin (especially in high-pectin fruits such as apples or cranberries), contributing to a pectin haze in the finished mead. If you can do so in a sanitary fashion, consider crushing, cutting or freezing the fruit so that it releases more juices. If you choose to freeze your fruit, let it freeze for at least 48 hours so that it is completely frozen. Then, when you intend to add the fruit to your

must, let it defrost to room temperature (preferably in a sanitized, sealed bag) before adding it to your must.

If you add fruit to the primary fermentation, the mead clears more rapidly since the fruit helps precipitate the yeast and other particulates. The disadvantages are that much of the fruit aroma is lost during the relatively vigorous initial fermentation.

If you add fruit towards the end of primary fermentation, you can avoid aroma loss, but you prolong fermentation (as the yeast begins to work on the sugars provided by the fruit). If you add the fruit in secondary, you can rack the new mead onto the fruit, avoiding the wait for the fruit to settle.

Making Metheglin; If you add herbs or spices to your beer, it is best to add them in secondary, when you are more certain of the flavor of your mead and its alcohol can help extract essential oils and aromatic compounds from the spices. If you add spices directly to your mead, it is best to crush or grind them and then put them in a muslin bag suspended in your carboy. That way you can easily pull the spices out when you're satisfied with the flavor. Alternately, you can extract the essential oils by soaking your herbs in vodka or grain spirits, and then add the flavored alcohol to your mead.

Part 3: Troubleshooting Mead

The most common problems with homebrewed meads are too low an acid level and too much alcohol. Your goal is balancing alcohol with acidity and residual sweetness, rather than making rocket fuel. If your mead has a high residual sweetness, it will need more acidity to balance it. You can check this with a winemaker's acid test kit. Sweet mead should have a maximum acidity of 0.85% (8.5 g/l), while dry melomel could have acidity as low as 0.6% (6 g/l). You can adjust balance by adding a bit of lemon juice, acid blend powder, citric acid, malic acid or tartaric acid.

Another problem with mead is poor yeast health, due to high gravity wort, lack of nutrients and underpitching of yeast This can cause stuck fermentation, off-flavors and other lack of clarity.

The other problems for homebrewers are lack of nutrients and underpitching of yeast. Both of these lead to stuck fermentations. I recommend 1-2 grams of nutrient per liter of must and 10 grams of yeast per 5-6 gallon batch.

Acetic: Acetic acid, vinegar. Also known as volatile acidity in winemaking. Sharp sourness, vinegary aroma/flavor. *Troubleshooting:* This is caused by an acetobacter infection which turns alcohol into vinegar. The corrections are the same as for Bacterial Haze. Check process and ingredients for sources of infection. Check health/purity of yeast strain. Check for post-fermentation oxidation sources (acetobacter is aerobic). Check handling of fruit additions, since bacteria may be introduced on the fruit skins. Check sanitation of any ingredients added post-fermentation. It is also possible to dissolve 2 tsp potassium bitartrate (cream of tartar) in a quart of the infected mead, and then add the mixture to the rest of the batch. If the flavor is not back to normal after a week or so, try again. This treatment is at a short term and the mead will have to be consumed quickly. If a mead gets infected in a barrel (or any other vessel made of wood), the vessel is infected and hence can no longer be used.

Acidic: low pH. Tart, sour (basic taste sensation), often with an indication of tart sharpness in aroma. Typically from one of several acids: citric, lactic, malic or tartaric. Sourness comes from low pH. *Troubleshooting:* Check level of acid additions. Check acid levels in honey. Check acid levels in any fruit used (some fruit have higher acid levels, unripe fruit has higher acid levels). Check for infection, particularly lactobacillus. Check sweetness levels and attenuation (an over-attenuated and drier mead than expected might seem acidic if less sweetness is present than what was planned).

Alcoholic/Hot: The effect of ethanol & higher alcohols. Hot, spicy, vinous aromas and flavors, warming or burning mouthfeel and aftertaste, increased bitterness. Can be desirable, but only if alcoholic flavor and aroma doesn't overpower other aspects of bouquet. *Troubleshooting:* Lower fermentation temperature. Let mead age longer before consuming. Use less fermentables (to lower ABV). Use a less attenuative yeast strain. Check yeast health. Use sufficient yeast nutrients. Check for possible infection, which could have caused more attenuation. Stabilize mead to prevent further fermentation.

Astringent: See Tannic.

Bitterness: Bitterness can be caused by oxidation or by excessive fruit or spice additions. *Troubleshooting:* Oxidation can be prevented by adding sulfites or ascorbic acid, as well as by minimizing contact with the air (e.g., don't splash during racking, keep head space in carboys small or use a CO2 "blanket" over your must. Casein can be used to counter the darkening. It can also be prevented by keeping pH and conditioning temperatures low.

Cardboard: Oxidation. Stale, papery, wet cardboard aroma and flavor. *Troubleshooting:* Check for oxygen being introduced into mead post-fermentation. Don't splash when racking/bottling. Check caps and/or keg seals for good fit. Purge bottles/kegs with CO2 prior to filling. Store mead cool. Drink mead when fresh.

Chemical: Chemicals in the mead above taste threshold levels, presence of undesirable chemical substances. Chemical, vitamin, nutrient flavors, possibly with bitterness or saltiness. *Troubleshooting:* Use less nutrient additions, check purity and cleanliness of water sources, check use of cleaning chemicals. Off flavors due to excess yeast nutrient will gradually go away after months or years of aging.

Cloudy: Obscured with visible particles (of any source). Hazy appearance, obscuring particulates, floating flakes (floaties). *Troubleshooting:* Fine with clarifying agents, troubleshoot stuck fermentation, try different clarifying agents, allow sufficient time for clarifying agents to work properly, add pectinase, mechanically filter.

Cloying: Excessive sweetness unbalanced by acidity or tannin. Also known as "flabby" in the wine-tasting world. Overly sweet, syrupy flavor. Heavy body, tongue-coating mouthfeel. Lack of acidity or tannin in flavor. Sometimes accompanied with a raw honey flavor, but this isn't required. *Troubleshooting:* Ferment more completely (troubleshoot fermentation), use less honey or sugary adjuncts, add balancing acid and/or tannin.

Crystals: White crystals of bitartrate (potassium bitartrate) drop to the bottom of the fermentation vessel when it is kept at a low temperature. *Troubleshooting:* These can be racked off, or else the temperature of the fermenting vessel can be increased. This problem can be avoided by not using tartaric acid. It can also be prevented by deliberately cooling the mead while it is in secondary and racking it off of the lees to prevent crystal formation in the bottle.

Floral: Flower-like aromatics. Flower blossom, perfume-like aroma and flavor. Due to esters. This can be desirable characteristic of varietal honey, or it can be a symptom of too warm or poor fermentation. Germanium odor is specifically associated with lactobacillus infection. *Troubleshooting:* Select a honey variety with the desired varietal characteristics. Use proper temperature for yeast strain. Review sanitation.

Fruity: Estery. Fruity aroma or flavor (may include apple, banana, pear, grape, strawberry, citrus, or others). Flavors & aromas often derived from fruits added in a melomel. Some fruity/estery flavors, especially banana & pineapple, can be a sign of high fermentation temperature or poor fermentation conditions. *Troubleshooting:* Lower fermentation temperature. Try a cleaner yeast strain. Oxygenate must sufficiently. Reduce original gravity. Pitch a sufficient quantity of yeast (avoid yeast stress). Bottle condition and

age mead longer at cellar temperatures to reduce esters. Try a different variety of honey.

Geranium: The smell of geraniums. Also see Floral. This caused by the transformation of sorbic acid by lactic bacteria. *Troubleshooting:* This can be prevented by using as little sorbic acid as possible and by following the suggestions for bacterial Haze.

Harsh: Rough, unpleasant flavor and finish. A rough, biting or stinging sensation in the mouth, often with excessive bitterness. This is caused either by herb or spice additions, or due to excessive or higher alcohols. It can also be due to contact with cork. Also see Alcoholic/Hot, Astringent and Chemical. *Troubleshooting:* Look at sources of acids, alcohols and tannins (see Acidic, Alcoholic, and Tannic descriptions for specific controls).

Haze (bacterial): There is a haze in the mead as well as off-flavors and/or aromas. Also see Cloudy. *Troubleshooting:* There is little cure for this, but it can be prevented by good sanitation, minimizing air contact, and by getting the mead to quickly ferment up to 12-14% ABV, as well as by getting pH in the proper range. Alternately, you can use sulfites if you suspect contamination.

Haze (non bacterial): There is a haze in the mead but no off flavors or aromas. Also see Cloudy. *Troubleshooting:* This could be a sign of incomplete yeast flocculation (wait and rack the mead again) or it could be a sign of protein or pectin haze, which can be removed with finings.

Metallic: Containing metallic ions, especially iron. Tinny, coiny, copper, iron, or blood-like flavor. Caused by contact with copper, iron, tin or similar metal. *Troubleshooting:* Check water for metallic ions. Reduce water salts. Reduce nutrient additions. Check equipment condition for rust. Make sure stainless steel equipment is properly passivated. Fully rinse sanitizer. Try using reverse osmosis water and add salts as needed.

Moldy/Musty: Stale, musty, or moldy aromas/flavors. Mold-like character. TCA (cork taint). Stale, moldy, musty cellar-like, earthy, compost-like, mushroom-like aromas and flavors. Wet cardboard and old rag flavors. *Troubleshooting:* This can be a sign of aging, poor cork quality, or due to mold. Mustiness is due to fungi or mold on the cork, or by fermenting or conditioning in an oxygen-permeable container (e.g., a plastic bucket) resting on a moldy surface (e.g., a basement floor). If the problem is due to mold on the corks, the other bottles in the batch can be saved if you draw the corks, clean the inside of the neck with a clean cloth soaked in sulfite solution, and then recork. Also, make sure that your storage area is not too humid, since this promotes mold growth. Moldy corks can also be prevented by using good quality (non-porous) corks. Avoid oxidation. Check sanitation. Check water for freshness and taste. Use fresh ingredients. Check for mold in corks or use artificial corks.

Oxidized: Any one or combination of winy/vinous, cardboard, papery, or sherry-like aromas and flavors. Due to excessive oxidation. See Cardboard or Sherry.

Phenolic: A large group of organic chemicals often having plastic, medicinal or tar-like aromatics. Spicy (clove, pepper), smoky, plastic, plastic adhesive strip/Band-Aid™, medicinal (chlorophenolic, Chloraseptic™) or vanilla aroma and flavor. Usually due to high fermentation temperature or excess spice additions. *Troubleshooting:* Check for infection (spicy, smoky, plastic character). Check yeast strain and health (spicy, smoky notes). Check honey variety. Check for oak usage (vanilla character). Check cleanliness of water source (chlorophenols, bromophenols). Use charcoal-filtered, reverse osmosis or distilled water.

Sherry: Post-fermentation oxidation. Sherry, nutty, almond aroma and flavor, possibly with an increased bitterness level. Also see Cardboard. *Troubleshooting:* Check for sources of oxygen being introduced after fermentation is complete. Check airlocks to make sure they haven't dried out. Don't splash when racking/bottling. Check caps and/or keg seals for good fit. Purge bottles/kegs with CO2 prior to filling. Store mead cool. Drink mead when fresh.

Solvent: Fusel alcohols, ethyl acetate. Hot burning on palate, harsh finish and aftertaste. Headaches. Nail polish remover or solvent (acetone, lacquer thinner). *Troubleshooting:* Lower fermentation temperature. Pitch a sufficient quantity of healthy, active yeast. Check for infection. Try a different yeast strain. Ensure sufficient nitrogen-based nutrients are available.

Sulfury: Hydrogen sulfide, sulfur dioxide. Rotten eggs, burning matches, and other sulfur-based aromas and flavors. Generally unpleasant. Sulfur odors can be caused by an excess of sulfur dioxide (SO2). This can either be a sign of a bacterial infection, or of too much sulfite. If the sulfur aroma is due to excess sulfites, some of the smell will go away if you let the mead air for a few hours. You can also use ascorbic acid instead of sulfites to stabilize mead when it is bottled. *Troubleshooting:* Provide sufficient nitrogen-based nutrients. Check for infection. Check water for excessive sulfates. Check yeast health. Check for yeast autolysis (mead left on yeast too long at warm temperatures). Try another yeast strain. Cut back on sulfite additions.

Sweet: Basic taste associated with sugar or honey. Too much sweetness is referred to as a syrupy or cloying quality. Sugary or honey-like flavor and aroma. Due to stuck fermentation or yeast strain inadequate for target gravity. Also see Cloying *Troubleshooting:* Use less honey, encourage a more complete fermentation, aim for a lower finishing gravity, try other honey varieties.

Tannic: Polyphenolic. Drying, puckering taste, similar to bitterness. Astringent, bitter plant polyphenols that either bind and precipitate or shrink proteins. Astringent, mouth-puckering mouthfeel, lingering harshness, grape skin or oaky character, increased bitterness, dry finish. Taste of strong unsweetened tea or chewing on a grape skin. *Troubleshooting:* This is due to excess tannins, either from deliberate additions or due to fruit or spice additions. Avoid use of raw spices, fruit pith and fruit skins. Reduce tannin additions. Use less oaking. Don't boil fruit skins, herbs, spices or grain husks. Be aware of tannin levels in fruits.

Thin: Lacking in body (also generally lacking in honey flavor impact). Thin palate, mouthfeel, and finish. Watery palate impression and body. Insipid character. *Troubleshooting:* Reduce attenuation, back-sweeten with honey, use fewer adjuncts, try a different honey variety, add glycerine (glycerol syrup, wine finishing formula).

Vegetal: Smell or taste of plants or green vegetables. Cooked, canned or rotten vegetable (asparagus, cabbage, celery, onion, parsnip) aroma and flavor. *Troubleshooting:* Due to bacterial infection. Encourage a fast, vigorous fermentation (use a healthy, active starter to reduce lag time; this is often due to bacterial contamination of must before yeast becomes established). Check sanitation. Check for aged, stale, or old ingredients.

Vinegar: See Acetic.

Waxy: Characteristic flavor of beeswax. Wax-like, tallow, fatty flavor and aroma. *Troubleshooting:* Try a different variety of honey (better filtration). Get good separation of honey from comb (don't use comb honey). Filter honey. Avoid oxidation. Carefully heat diluted honey before pitching yeast and skim waxy material off the top.

Yeasty: A bready, sulfury or yeast-like aroma or flavor. "Brothy" or "meaty" flavors indicate the presence of autolysed yeast, meaning that the mead has sat on its lees too long. *Troubleshooting:* If there are still suspended yeast cells in the mead, it will taste yeast, and often be cloudy. It will need to be aged further and then racked to another vessel. Alternately, finings can be used to precipitate the yeast. Use a more flocculent yeast strain. Allow yeast sufficient time to

flocculate. Filter mead or use clarifying agents. Avoid carrying over as much yeast. Age the mead longer. Try another yeast strain.

Part 2: Evaluating Mead

Part 4: BJCP Mead Styles (BJCP Categories 24-26)

Introduction to Mead Guidelines

The following discussion applies to all the mead styles, except where explicitly superseded in the sub-category guidelines. This introduction identifies common characteristics and descriptions for all types of mead, and should be used as a reference whenever entering or judging mead.

Important attributes that must be specified

Sweetness

A mead may be dry, semi-sweet, or sweet. Sweetness simply refers to the amount of residual sugar in the mead. Sweetness is often confused with fruitiness in a dry mead. Body is related to sweetness, but dry meads can still have some body. Dry meads do not have to be bone dry. Sweet meads should not be cloyingly sweet, and should not have a raw, unfermented honey character. Sweetness is independent of strength.

Carbonation

A mead may be still, petillant, or sparkling. Still meads do not have to be totally flat; they can have some very light bubbles. Petillant meads are "lightly sparkling" and can have a moderate, noticeable amount of carbonation. Sparkling meads are not gushing, but may have a character ranging from mouth-filling to an impression akin to Champagne or soda pop.

Strength

A mead may be categorized as hydromel, standard, or sack strength. Strength refers to the alcohol content of the mead (and also, therefore, the amount of honey and fermentables used to make the mead). Stronger meads can have a greater honey character and body (as well as alcohol) than weaker meads, although this is not a strict rule.

Honey variety

Some types of honey have a strong varietal character (aroma, flavor, color, acidity). If a honey is unusual, additional information can be provided to judges as to the character to be expected. Note that "wildflower" isn't a varietal honey; it is specifically a term used to describe a honey derived from unknown or mixed flowers.

Special ingredients

Different sub-styles may include fruit, spice, malt, etc. Judges need to understand the ingredients that provide a unique character in order to properly evaluate the mead.

Common Mead Characteristics

Appearance

Clarity may be good to brilliant. Crystal clear, reflective examples with a bright, distinct meniscus are highly desirable. Observable particulates (even in a clear example) are undesirable. Highly carbonated examples usually have a short-lasting head similar to Champagne or soda pop. Some aspects of bubbles or head formation that may be observed and commented upon include size (large or small), persistence (how long do they continue to form?), quantity (how much are present?), rate (how fast do they form?), and mousse (appearance or quality of foam stand). The components of bubbles or head will vary greatly depending on the carbonation level, ingredients and type of mead. In general, smaller bubbles are more desirable and indicative of higher quality than larger bubbles. The color may vary widely depending on honey variety and any optional ingredients (e.g., fruit, malts). Some honey varieties are almost clear, while others can be dark brown. Most are in the straw to gold range. If no honey variety is declared, almost any color is acceptable. If a honey variety is declared, the color should generally be suggestive of the honey used (although a wide range of color variation is still possible). Hue, saturation and purity of color should be considered. Stronger versions (standard and sack) may show signs of body (e.g., legs, meniscus) but higher carbonation levels can interfere with this perception.

Aroma

The intensity of the honey aroma will vary based upon the sweetness and strength of the mead. Stronger or sweeter meads may have a stronger honey aroma than drier or weaker versions. Different varieties of honey have different intensities and characters; some (e.g., orange blossom, buckwheat) are more recognizable than others (e.g., avocado, palmetto). If honey varieties are declared, the varietal character of the honey should be apparent even if subtle. The aromatics may seem vinous (similar to wine), and may include fruity, floral, or spicy notes. The bouquet (rich, complex smells arising from the combination of ingredients, fermentation and aging) should show a pleasant fermentation character, with clean and fresh aromatics being preferred over dirty, yeasty, or sulfury notes. A multi-faceted bouquet, also known as complexity or depth, is a positive attribute. Phenolic or diacetyl aromatics should not be present. Harsh or chemical aromatics should not be present. Light oxidation may be present, depending on age, and may result in sherry-like notes, which are acceptable in low to moderate levels (if in balance, these can add to complexity). An excessive sherry character is a fault in most styles (except certain Polish-style specialties, or other meads attempting a sherry-like character). Oxidation resulting in a papery character is always undesirable. Alcohol aromatics may be present, but hot, solventy or irritating overtones are a defect. The harmony and balance of the aroma and bouquet should be pleasant and enticing.

Flavor

The intensity of the honey flavor will vary based upon the sweetness and strength of the mead. Stronger, sweeter meads will have a stronger honey flavor than drier, weaker versions. Different varieties of honey have different intensities and characters; some (e.g., orange blossom, buckwheat) are more recognizable than others (e.g., safflower, palmetto). If honey varieties are declared, the varietal character of the honey should be apparent even if subtle. The residual sweetness level will vary with the sweetness of the mead; dry meads will have no residual sugar, sweet meads will have noticeable to prominent sweetness, semi-sweet meads will have a balanced sweetness. In no case should the residual sweetness be syrupy, cloying or seem like unfermented honey. Any additives, such as acid or tannin, should enhance the honey flavor and lend balance to the overall character of the mead but not be excessively tart or astringent. Artificial, chemical, harsh, phenolic or bitter flavors are defects. Higher carbonation (if present) enhances the acidity and gives a "bite" to the finish. The aftertaste should be evaluated; longer finishes are generally most desirable. A multi-faceted flavor, also known as complexity or depth, is a positive attribute. Yeast or fermentation

characteristics may be none to noticeable, with estery, fresh and clean flavors being most desirable. Alcohol flavors (if present) should be smooth and well-aged, not harsh or solventy. Light oxidation may be present, depending on age, but an excessive sherry-like or papery character should be avoided. Aging and conditioning generally smooth out flavors and create a more elegant, blended, rounded product. Flavors tend to become more subtle over time, and can deteriorate with extended aging.

Mouthfeel

Before evaluating, refer to the declared sweetness, strength and carbonation levels, as well as any special ingredients. These can all affect mouthfeel. Smooth texture. Well-made examples will often have an elegant wine-like character. The body can vary widely, although most are in the medium-light to medium-full range. Body generally increases with stronger and/or sweeter meads, and can sometimes be quite full and heavy. Similarly, body generally decreases with lower gravity and/or drier meads, and can sometimes be quite light. Sensations of body should not be accompanied by an overwhelmingly cloying sweetness (even in sweet meads). A very thin or watery body is likewise undesirable. Some natural acidity is often present (particularly in fruit-based meads). Low levels of astringency are sometimes present (either from specific fruit or spices, or from tea, chemical additives or oak-aging). Acidity and tannin help balance the overall honey, sweetness and alcohol presentation. Carbonation can vary widely (see definitions above). Still meads may have a very light level of carbonation, lightly carbonated (petillant) meads will have noticeable bubbles, and a highly carbonated (sparkling) mead can range from a mouth-filling carbonation to levels approaching Champagne or soda pop. High carbonation will enhance the acidity and give a "bite" to the finish. A warming alcohol presence is often present, and this character usually increases with strength (although extended aging can smooth this sensation).

Overall Impression

A wide range of results are possible, but well-made examples will have an enjoyable balance of honey flavors, sweetness, acidity, tannins, alcohol. Strength, sweetness and age greatly affect the overall presentation. Any special ingredients should be well-blended with the other ingredients, and lead to a harmonious end product.

Ingredients

Mead is made primarily from honey, water and yeast. Some minor adjustments in acidity and tannin can be made with citrus fruits, tea, chemicals, or the use of oak aging; however, these additives should not be readily discernable in flavor or aroma. Yeast nutrients may be used but should not be detected. If citrus, tea, or oak additives result in flavor components above a low, background, balance-adjusting level, the resulting mead should be entered appropriately (e.g., as a metheglin or open category mead, not a traditional).

Vital Statistics

OG: hydromel: 1.035 - 1.080 standard: 1.080 - 1.120 sack: 1.120 - 1.140+

ABV: hydromel: 3.5 - 7.5% standard: 7.5 - 14% sack: 14 - 18%

FG: dry: 0.990 - 1.010 semi-sweet: 1.010 - 1.025 sweet: 1.025 - 1.040+

IBUs: not relevant for anything but braggot, but bittering hops are optional even in this style.

SRM: basically irrelevant since honey can be anything from almost clear to dark brown. Melomels and pyments can have orange, red, pink and/or purple hues. Cysers are most often golden. Braggots can be yellow to black. In all cases, the color should reflect the ingredients used (type of honey, and fruit and/or malt in some styles).

Entering and Categorizing Meads

Mandatory Requirements

*Entrants MUST specify carbonation level (still; petillant or lightly carbonated; sparkling or highly carbonated).

* Entrants MUST specify strength level (hydromel or light mead; standard mead; sack or strong mead).

* Entrants MUST specify sweetness level (dry; semi-sweet; sweet).

Optional Requirements

Entrants MAY specify honey varieties used. If honey varieties are declared, judges will look for the varietal character of the honey. Note that the character of a varietal honey will be identifiable as distinct to the source flowers, but may not resemble the source plant, tree, or fruit. For example, orange-blossom honey has the character of orange blossoms, not oranges; blackberry honey is only distantly like blackberries, although it is an identifiable character.

Category-Specific Requirements

Some categories require additional information, particularly in categories other than traditional mead. For example, declaring specific fruit, spices, or special characteristics. Supplemental materials may be provided to judges if an obscure ingredient or method is used.

Defaults

If no attributes are specified, judges should evaluate the mead as a semi-sweet, petillant, standard-strength mead with no varietal honey character and no special ingredients. Competition organizers should make every effort to ensure that judges are provided the full set of attributes of the meads being evaluated.

Traditional Mead (BJCP Category 24)

24A. Dry Mead

Aroma: Honey aroma may be subtle, although not always identifiable. Sweetness or significant honey aromatics should not be expected. If a honey variety is declared, the variety should be distinctive (if noticeable). Different types of honey have different intensities and characters. Standard description applies for remainder of characteristics.

Appearance: Standard description applies.

Flavor: Subtle (if any) honey character, and may feature subtle to noticeable varietal character if a varietal honey is declared (different varieties have different intensities). No to minimal residual sweetness with a dry finish. Sulfury, harsh or yeasty fermentation characteristics are undesirable. Standard description applies for remainder of characteristics.

Mouthfeel: Standard description applies, although the body is generally light to medium. Note that stronger meads will have a fuller body. Sensations of body should not be accompanied by noticeable residual sweetness.

Overall Impression: Similar in balance, body, finish and flavor intensity to a dry white wine, with a pleasant mixture of subtle honey character, soft fruity esters, and clean alcohol. Complexity, harmony, and balance of sensory elements are most desirable, with no inconsistencies in color, aroma, flavor or aftertaste. The proper balance of sweetness, acidity, alcohol and honey character is the essential final measure of any mead.

Comments: See standard description for entrance requirements. Entrants MUST specify carbonation level and strength.

Sweetness is assumed to be DRY in this category. Entrants MAY specify honey varieties.

Ingredients: Standard description applies. Traditional Meads feature the character of a blended honey or a blend of honeys. Varietal meads feature the distinctive character of certain honeys. "Show meads" feature no additives, but this distinction is usually not obvious to judges.

24B. Semi-sweet Mead

Aroma: Honey aroma should be noticeable, and can have a light sweetness that may express the aroma of flower nectar. If a variety of honey is declared, the aroma might have a subtle to very noticeable varietal character reflective of the honey (different varieties have different intensities and characters). Standard description applies for remainder of characteristics.

Flavor: Subtle to moderate honey character, and may feature subtle to noticeable varietal character if a varietal honey is declared (different varieties have different intensities). Subtle to moderate residual sweetness with a medium-dry finish. Sulfury, harsh or yeasty fermentation characteristics are undesirable. Standard description applies for remainder of characteristics.

Mouthfeel: Standard description applies, although the body is generally medium-light to medium-full. Note that stronger meads will have a fuller body. Sensations of body should not be accompanied by a residual sweetness that is higher than moderate.

Overall Impression: Similar in balance, body, finish and flavor intensity to a semisweet (or medium-dry) white wine, with a pleasant mixture of honey character, light sweetness, soft fruity esters, and clean alcohol. Complexity, harmony, and balance of sensory elements are most desirable, with no inconsistencies in color, aroma, flavor or aftertaste. The proper balance of sweetness, acidity, alcohol and honey character is the essential final measure of any mead.

Comments: See standard description for entrance requirements. Entrants MUST specify carbonation level and strength. Sweetness is assumed to be SEMI-SWEET in this category. Entrants MAY specify honey varieties.

Ingredients: Standard description applies. Traditional Meads feature the character of a blended honey or a blend of honeys. Varietal meads feature the distinctive character of certain honeys. "Show meads" feature no additives, but this distinction is usually not obvious to judges.

Commercial Examples: Lurgashall English Mead, Redstone Traditional Mountain Honey Wine, Sky River Semi-Sweet Mead

24C. Sweet Mead

Aroma: Honey aroma should dominate, and is often moderately to strongly sweet and usually expresses the aroma of flower nectar. If a variety of honey is declared, the aroma might have a subtle to very noticeable varietal character reflective of the honey (different varieties have different intensities and characters). Standard description applies for remainder of characteristics.

Appearance: Standard description applies.

Flavor: Moderate to significant honey character, and may feature moderate to prominent varietal character if a varietal honey is declared (different varieties have different intensities). Moderate to high residual sweetness with a sweet and full (but not cloying) finish. Sulfury, harsh or yeasty fermentation characteristics are undesirable. Standard description applies for remainder of characteristics.

Mouthfeel: Standard description applies, although the body is generally medium-full to full. Note that stronger meads will have a fuller body. Many seem like a dessert wine. Sensations of body should not be accompanied by cloying, raw residual sweetness.

Overall Impression: Similar in balance, body, finish and flavor intensity to a well-made dessert wine (such as Sauternes), with a pleasant mixture of honey character, residual sweetness, soft fruity esters, and clean alcohol. Complexity, harmony, and balance of sensory elements are most desirable, with no inconsistencies in color, aroma, flavor or aftertaste. The proper balance of sweetness, acidity, alcohol and honey character is the essential final measure of any mead.

Comments: See standard description for entrance requirements. Entrants MUST specify carbonation level and strength. Sweetness is assumed to be SWEET in this category. Entrants MAY specify honey varieties.

Ingredients: Standard description applies. Traditional Meads feature the character of a blended honey or a blend of honeys. Varietal meads feature the distinctive character of certain honeys. "Show meads" feature no additives, but this distinction is usually not obvious to judges.

Fruit Mead (BJCP Category 25)

25A. Cyser (Apple Melomel)

Aroma: Depending on the sweetness and strength, a subtle to distinctly identifiable honey and apple/cider character (dry and/or hydromel versions will tend to have lower aromatics than sweet and/or sack versions). The apple/cider character should be clean and distinctive; it can express a range of apple-based character ranging from a subtle fruitiness to a single varietal apple character (if declared) to a complex blend of apple aromatics. Some spicy or earthy notes may be present, as may a slightly sulfury character. The honey aroma should be noticeable, and can have a light to significant sweetness that may express the aroma of flower nectar. If a variety of honey is declared, the aroma might have a subtle to very noticeable varietal character reflective of the honey (different varieties have different intensities and characters). The bouquet should show a pleasant fermentation character, with clean and fresh aromatics being preferred. Stronger and/or sweeter versions will have higher alcohol and sweetness in the nose. Slight spicy phenolics from certain apple varieties are acceptable, as is a light diacetyl character from malolactic fermentation (both are optional). Standard description applies for remainder of characteristics.

Appearance: Standard description applies, except with regard to color. Color may range from pale straw to deep golden amber (most are yellow to gold), depending on the variety of honey and blend of apples or ciders used.

Flavor: The apple and honey flavor intensity may vary from none to high; the residual sweetness may vary from none to high; and the finish may range from dry to sweet, depending on what sweetness level has been declared (dry to sweet) and strength level has been declared (hydromel to sack). Natural acidity and tannin in apples may give some tartness and astringency to balance the sweetness, honey flavor and alcohol. A cyser may have a subtle to strong honey character, and may feature noticeable to prominent varietal character if a varietal honey is declared (different varieties have different intensities). Slight spicy phenolics from certain apple varieties are acceptable, as are a light diacetyl character from malolactic fermentation and a slight sulfur character (all are optional). Standard description applies for remainder of characteristics.

Mouthfeel: Standard description applies. Often wine-like. Some natural acidity is usually present (from the blend of apples) and helps balance the overall impression. Some apples can provide natural astringency, but this character should not be excessive.

Overall Impression: In well-made examples of the style, the fruit is both distinctive and well-incorporated into the honey-sweet-acid-tannin-alcohol balance of the mead. Some of the best strong

examples have the taste and aroma of an aged Calvados (apple brandy from northern France), while subtle, dry versions can taste similar to many fine white wines.

Comments: There should be an appealing blend of the fruit and honey character but not necessarily an even balance. Generally a good tannin-sweetness balance is desired, though very dry and very sweet examples do exist. See standard description for entrance requirements. Entrants MUST specify carbonation level, strength, and sweetness. Entrants MAY specify honey varieties. Entrants MAY specify the varieties of apple used; if specified, a varietal character will be expected. Products with a relatively low proportion of honey are better entered as a Specialty Cider.

Ingredients: Standard description applies. Cyser is a standard mead made with the addition of apples or apple juice. Traditionally, cysers are made by the addition of honey to apple juice without additional water. A spiced cyser, or a cyser with other ingredients, should be entered as an Open Category Mead.

25B. Pyment (Grape Melomel)

Aroma: Depending on the sweetness and strength, a subtle to distinctly identifiable honey and grape/wine character (dry and/or hydromel versions will tend to have lower aromatics than sweet and/or sack versions). The grape/wine character should be clean and distinctive; it can express a range of grape-based character ranging from a subtle fruitiness to a single varietal grape character (if declared) to a complex blend of grape or wine aromatics. Some complex, spicy, grassy or earthy notes may be present (as in wine). The honey aroma should be noticeable, and can have a light to significant sweetness that may express the aroma of flower nectar. If a variety of honey is declared, the aroma might have a subtle to very noticeable varietal character reflective of the honey (different varieties have different intensities and characters). The bouquet should show a pleasant fermentation character, with clean and fresh aromatics being preferred. Stronger and/or sweeter versions will have higher alcohol and sweetness in the nose. Slight spicy phenolics from certain red grape varieties are acceptable, as is a light diacetyl character from malolactic fermentation in certain white grape varieties (both are optional). Standard description applies for remainder of characteristics.

Appearance: Standard description applies, except with regard to color. Color may range from pale straw to deep purple-red, depending on the variety of grapes and honey used. The color should be characteristic of the variety or type of grape used, although white grape varieties may also take on color derived from the honey variety.

Flavor: The grape/wine and honey flavor intensity may vary from subtle to high; the residual sweetness may vary from none to high; and the finish may range from dry to sweet, depending on what sweetness level has been declared (dry to sweet) and strength level has been declared (hydromel to sack). Natural acidity and tannin in grapes may give some tartness and astringency to balance the sweetness, honey flavor and alcohol. A pyment may have a subtle to strong honey character, and may feature noticeable to prominent varietal character if a varietal honey is declared (different varieties have different intensities). Depending on the grape variety, some fruity, spicy, grassy, buttery, earthy, minerally, and/or floral flavors may be present. Standard description applies for remainder of characteristics.

Mouthfeel: Standard description applies. Wine-like. Some natural acidity is usually present (from grapes) and helps balance the overall impression. Grape tannin and/or grape skins can add body as well as some astringency, although this character should not be excessive. Longer aging can smooth out tannin-based astringency.

Overall Impression: In well-made examples of the style, the grape is both distinctively vinous and well-incorporated into the honey-sweet-acid-tannin-alcohol balance of the mead. White and red versions can be quite different, and the overall impression should be characteristic of the type of grapes used and suggestive of a similar variety wine.

Comments: There should be an appealing blend of the fruit and honey character but not necessarily an even balance. Generally a good tannin-sweetness balance is desired, though very dry and very sweet examples do exist. See standard description for entrance requirements. Entrants MUST specify carbonation level, strength, and sweetness. Entrants MAY specify honey varieties. Entrants MAY specify the varieties of grape used; if specified, a varietal character will be expected.

Ingredients: Standard description applies. A pyment is a standard mead made with the addition of grapes or grape juices. Alternatively, the pyment may be a homemade grape-based wine sweetened with honey, or a mead mixed with homemade grape-based wine after fermentation. A spiced pyment (hippocras), or a pyment with other ingredients should be entered as an Open Category Mead.

25C. Other Fruit Melomel

Aroma: Depending on the sweetness and strength, a subtle to distinctly identifiable honey and fruit character (dry and/or hydromel versions will tend to have lower aromatics than sweet and/or sack versions). The fruit character should display distinctive aromatics associated with the particular fruit(s); however, note that some fruit (e.g., raspberries, cherries) have stronger aromas and are more distinctive than others (e.g., blueberries, strawberries) — allow for a range of fruit character and intensity from subtle to aggressive. The fruit character should be pleasant and supportive, not artificial and inappropriately overpowering (considering the character of the fruit). In a blended fruit melomel, not all fruit may be individually identifiable or of equal intensity. The honey aroma should be noticeable, and can have a light to significant sweetness that may express the aroma of flower nectar. If a variety of honey is declared, the aroma might have a subtle to very noticeable varietal character reflective of the honey (different varieties have different intensities and characters). The bouquet should show a pleasant fermentation character, with clean and fresh aromatics being preferred. Stronger and/or sweeter versions will have higher alcohol and sweetness in the nose. Some tartness may be present if naturally occurring in the particular fruit(s), but should not be inappropriately intense. Standard description applies for remainder of characteristics.

Appearance: Standard description applies, except with regard to color. Color may take on a very wide range of colors, depending on the variety of fruit and/or honey used. For lighter-colored melomels with fruits that exhibit distinctive colors, the color should be noticeable. Note that the color of fruit in mead is often lighter than the flesh of the fruit itself and may take on slightly different shades. Meads made with lighter color fruits can also take on color from varietal honeys. In meads that produce a head, the head can take on some of the fruit color as well.

Flavor: The fruit and honey flavor intensity may vary from subtle to high; the residual sweetness may vary from none to high; and the finish may range from dry to sweet, depending on what sweetness level has been declared (dry to sweet) and strength level has been declared (hydromel to sack). Natural acidity and tannin in some fruit and fruit skin may give some tartness and astringency to balance the sweetness, honey flavor and alcohol. A melomel may have a subtle to strong honey character, and may feature noticeable to prominent varietal character if a varietal honey is declared (different varieties have different intensities). The distinctive flavor character associated with the particular fruit(s) should be noticeable, and may range in

intensity from subtle to aggressive. The balance of fruit with the underlying mead is vital, and the fruit character should not be artificial and/or inappropriately overpowering. In a blended fruit melomel, not all fruit may be individually identifiable or of equal intensity. Standard description applies for remainder of characteristics.

Mouthfeel: Standard description applies. Most will be wine-like. Some natural acidity and/or astringency are sometimes present (from certain fruit and/or fruit skin) and helps balance the overall impression. Fruit tannin can add body as well as some astringency. High levels of astringency are undesirable. The acidity and astringency levels should be somewhat reflective of the fruit used.

Overall Impression: In well-made examples of the style, the fruit is both distinctive and well-incorporated into the honey-sweet-acid-tannin-alcohol balance of the mead. Different types of fruit can result in widely different characteristics; allow for a variation in the final product.

Comments: Generally a good tannin-sweetness balance is desired, though very dry and very sweet examples do exist. Some fruits, notably darker ones like Blackberries, may contribute a tannin presence similar to a red wine. Some oxidative properties may be appropriate in certain fruit meads, giving them a sherry or port wine character. See standard description for entrance requirements. Entrants MUST specify carbonation level, strength, and sweetness. Entrants MAY specify honey varieties. Entrants MUST specify the varieties of fruit used.

Ingredients: Standard description applies. A melomel is a standard mead made with the addition of other fruit or fruit juices. There should be an appealing blend of the fruit and honey character but not necessarily an even balance. A melomel can be made with a blend of fruits; however, a melomel that is spiced or that contains other ingredients should be entered as an Open Category Mead. Melomels made with either apples or grapes should be entered as Cysers and Pyments, respectively.

Specialty Mead (BJCP Category 26)

26A. Metheglin

Aroma: Depending on the sweetness and strength, a subtle to distinctly identifiable honey and herb/spice character (dry and/or hydromel versions will tend to have lower aromatics than sweet and/or sack versions). The herb/spice character should display distinctive aromatics associated with the particular herbs/spices; however, note that some herbs/spices (e.g., ginger, cinnamon) have stronger aromas and are more distinctive than others (e.g., chamomile, lavender) —allow for a range of herb/spice character and intensity from subtle to aggressive. The herb/spice character should be pleasant and supportive, not artificial and inappropriately overpowering (considering the character of the herb/spice). In a blended herb/spice metheglin, not all herbs/spices may be individually identifiable or of equal intensity. The honey aroma should be noticeable, and can have a light to significant sweetness that may express the aroma of flower nectar. If a variety of honey is declared, the aroma might have a subtle to very noticeable varietal character reflective of the honey (different varieties have different intensities and characters). The bouquet should show a pleasant fermentation character, with clean and fresh aromatics being preferred. Stronger and/or sweeter versions will have higher alcohol and sweetness in the nose. Some herbs and spices may produce spicy or peppery phenolics. Standard description applies for remainder of characteristics.

Appearance: Standard description applies, except perhaps to note that the color usually won't be affected by spices and herbs (although flowers, petals and peppers may provide subtle colors; tea blends may provide significant colors).

Flavor: The herb/spice flavor intensity may vary from subtle to high; the honey flavor intensity may vary from subtle to high; the residual sweetness may vary from none to high; and the finish may range from dry to sweet, depending on what sweetness level has been declared (dry to sweet) and strength level has been declared (hydromel to sack). The distinctive flavor character associated with the particular herbs/spices may range in intensity from subtle to aggressive (although some herbs/spices may not be individually recognizable, and can just serve to add a background complexity). Certain herbs and spices might add bitter, astringent, phenolic or spicy (hot) flavors; if present, these qualities should be related to the declared ingredients (otherwise, they are faults), and they should balance and blend with the honey, sweetness and alcohol. Metheglins containing more than one herb/spice should have a good balance among the different herbs/spices, though some herbs/spices will tend to dominate the flavor profile. A metheglin may have a subtle to strong honey character, and may feature noticeable to prominent varietal character if a varietal honey is declared (different varieties have different intensities). Standard description applies for remainder of characteristics.

Mouthfeel: Standard description applies. Some herbs or spices may contain tannins that add a bit of body and some astringency, but this character should not be excessive.

Overall Impression: In well-made examples of the style, the herbs/spices are both distinctive and well-incorporated into the honey-sweet-acid-tannin-alcohol balance of the mead. Different types of herbs/spices can result in widely different characteristics; allow for a variation in the final product.

Comments: Often, a blend of spices may give a character greater than the sum of its parts. The better examples of this style use spices/herbs subtly and when more than one are used, they are carefully selected so that they blend harmoniously. See standard description for entrance requirements. Entrants MUST specify carbonation level, strength, and sweetness. Entrants MAY specify honey varieties. Entrants MUST specify the types of spices used.

Ingredients: Standard description applies. A metheglin is a standard mead made with the addition of spices or herbs. Meads made with flowers (such as rose petal mead, or rhodomel) or chile peppers (capsimel/capsicumel) may also be entered in this category, as can meads made with a blend of spices. If spices are used in conjunction with other ingredients such as fruit, cider, or other fermentables, then the mead should be entered as an Open Category Mead.

26B. Braggot

Aroma: Depending on the sweetness, strength and base style of beer, a subtle to distinctly identifiable honey and beer character (dry and/or hydromel versions will tend to have lower aromatics than sweet and/or sack versions). The honey and beer/malt character should be complementary and balanced, although not always evenly balanced. If a variety of honey is declared, the aroma might have a subtle to very noticeable varietal character reflective of the honey (different varieties have different intensities and characters). If a base style of beer or type of malt is declared, the aroma might have a subtle to very noticeable character reflective of the beer style (different styles and malts have different intensities and characters). A hop aroma (any variety or intensity) is optional; if present, it should blend harmoniously with the other elements. Standard description applies for remainder of characteristics.

Appearance: Standard description does not apply due to beer-like characteristics. Clarity may be good to brilliant, although many braggots are not as clear as other meads. A light to moderate head with some retention is expected. Color may range from light straw to dark brown or black, depending on the variety of malt and honey used.

The color should be characteristic of the declared beer style and/or honey used, if a variety is declared. Stronger versions may show signs of body (e.g., legs).

Flavor: Displays a balanced character identifiable as both a beer and a mead, although the relative intensity of flavors is greatly affected by the sweetness, strength, base style of beer, and variety of honey used. If a beer style is declared, the braggot should have some character traceable to the style although the flavors will be different due to the presence of honey. If a variety of honey is declared, the braggot should feature a subtle to prominent varietal character (different varieties have different intensities). Stronger and/or sweeter braggots should be expected to have a greater intensity of flavor than drier, lower gravity versions. The finish and aftertaste will vary based on the declared level of sweetness (dry to sweet), and may include both beer and mead components. A wide range of malt characteristics is allowable, from plain base malts to rich caramel and toast flavors to dark chocolate and roast flavors. Hop bitterness and flavor may be present, and may reflect any variety or intensity; however, this optional character should always be both suggestive of the base beer style and well blended with the other flavors. Standard description applies for remainder of characteristics.

Mouthfeel: Standard description does not apply due to beer-like characteristics. Smooth mouthfeel without astringency. Body may vary from moderately light to full, depending on sweetness, strength, and the base style of beer. Note that stronger meads will have a fuller body. A very thin or watery body is undesirable, as is a cloying, raw sweetness. A warming sense of well-aged alcohol may be present in stronger examples. Carbonation will vary as described in the standard description. A still braggot will usually have some level of carbonation (like a cask bitter) since a completely flat beer is unappetizing. However, just as an aged barleywine may be still, some braggots can be totally still.

Overall Impression: A harmonious blend of mead and beer, with the distinctive characteristics of both. A wide range of results are possible, depending on the base style of beer, variety of honey and overall sweetness and strength. Beer flavors tend to somewhat mask typical honey flavors found in other meads.

Comments: Sometimes known as "bracket" or "brackett." The fermentable sugars come from a balance of malt or malt extract and honey, although the specific balance is open to creative interpretation by brewers. See standard description for entrance requirements. Entrants MUST specify carbonation level, strength, and sweetness. Entrants MAY specify honey varieties. Entrants MAY specify the base style or beer or types of malt used. Products with a relatively low proportion of honey should be entered in the Specialty Beer category as a Honey Beer.

Ingredients: A braggot is a standard mead made with both honey and malt providing flavor and fermentable extract. Originally, and alternatively, a mixture of mead and ale. A braggot can be made with any type of honey, and any type of base beer style. The malt component may be derived from grain or malt extracts. The beer may be hopped or not. If any other ingredients than honey and beer are contained in the braggot, it should be entered as an Open Category Mead. Smoked braggots may be entered in this category if using smoked malt or a smoked beer as the base style; braggots made using other smoked ingredients (e.g., liquid smoke, chipotles) should be entered in the Open Category Mead style.

26C. Open Category Mead

An Open Category Mead is a honey-based beverage that either combines ingredients from two or more of the other mead sub-categories, is a historical or indigenous mead (e.g., tej, Polish meads), or is a mead that does not fit into any other category. Any specialty or experimental mead using additional sources of fermentables (e.g., maple syrup, molasses, brown sugar, or agave nectar), additional ingredients (e.g., vegetables, liquors, smoke, etc.), alternative processes (e.g., icing, oak-aging) or other unusual ingredient, process, or technique would also be appropriate in this category. No mead can be "out of style" for this category unless it fits into another existing mead category.

Aroma, appearance, flavor, mouthfeel generally follow the standard descriptions, yet note that all the characteristics may vary Since a wide range of entries are possible, note that the characteristics may reflect combinations of the respective elements of the various sub-categories used in this style. Refer to Category 25 for a detailed description of the character of dry, semisweet and sweet mead. If the entered mead is a combination of other existing mead categories, refer to the constituent categories for a detailed description of the character of the component styles.

Overall Impression: This mead should exhibit the character of all of the ingredients in varying degrees, and should show a good blending or balance between the various flavor elements. Whatever ingredients are included, the result should be identifiable as a honey-based fermented beverage.

Comments: See standard description for entrance requirements. Entrants MUST specify carbonation level, strength, and sweetness. Entrants MAY specify honey varieties. Entrants MUST specify the special nature of the mead, whether it is a combination of existing styles, an experimental mead, a historical mead, or some other creation. Any special ingredients that impart an identifiable character MAY be declared.

Inspirational Reading

Books & Magazines

Schramm, Ken. ***The Compleat Meadmaker***, Brewer's Publications, Boulder, Co.

General Information

An Analysis of Mead, Mead Making and the Role of its Primary Constituents (http://hbd.org/brewery/library/Meadx.html)
Brew Monkey (http://www.brew-monkey.com/brewschool/yeast/wcmyeast.php)
Got Mead (http://www.gotmead.com/)
Honey in a Glass (http://byo.com/component/resource/article/Indices/46-Mead/850-honey-in-a-glass)
Making Mead: Tips from the Pros (http://byo.com/component/resource/article/Indices/46-Mead/1107-making-mead-tips-from-the-pros)
Mastering Mead (www.homebrewersassociation.org/attachments/0000/1256/NDzym05_MasterMead.pdf)
Mead (http://en.wikipedia.org/wiki/Mead)

Mead Bibliography ((http://www.bjcp.org/mead/meadbibliography.pdf)
Mead Clones (http://byo.com/component/resource/article/Issues/232-November%202005/1143-mead-clones)
Mead Day (http://www.homebrewersassociation.org/pages/events/mead-day)
Mead Hall (http://hbd.org/brewery/MHall.html)
Mead Lover's Digest/MLD Mailing list and archives (http://www.talisman.com/mead/)
Mead Made Complicated (http://www.meadmadecomplicated.org/resources/science.html)
Mead Made Easy (http://www.winemakermag.com/component/resource/article/4-Feature/496-mead-made-easy)
Mead Making Handbook Internet Edition, 1998 (http://mysite.verizon.net/mshapiro_42/meadmanl.html#top)
Mead: From Nectar to Nirvana (http://byo.com/component/resource/article/Issues/232-November%202005/1145-mead-from-nectar-to-nirvana)
Mead: Nectar of the Gods (http://www.winemakermag.com/component/resource/article/Issues/102-Fall%201999/498-mead-nectar-of-the-gods)
Mead: The Most Noble Brew (http://byo.com/component/resource/article/Issues/142-December%201996/1146-mead-the-most-noble-brew)
Meadfest (http://www.meadfest.com/)
Mead-Lover's FAQ ((http://hbd.org/brewery/library/meadfaq.html)
Still of the Night Mead (http://byo.com/component/resource/article/Indices/51-Recipe%20Exchange/1850-still-of-the-night-mead)
Storm the Castle *(http://www.stormthecastle.com/mead/index.htm)*
The Mead Makers Page (http://www.solorb.com/mead/)
What can I do to improve the aroma of my mead? (http://www.winemakermag.com/component/resource/article/Indices/27-Meadmaking/735-what-can-i-do-to-improve-the-aroma-of-my-mead)

Honey

Crystallization of Honey (http://www.bjcp.org/mead/crystal.pdf)
Effect of Honey on the Four Basic Tastes ((http://www.bjcp.org/mead/4tastes.pdf)
European Honey Varieties (http://www.bjcp.org/mead/MHS06.pdf)
Floral Source Guide ((http://www.bjcp.org/mead/FS_FloralSourceGuide.pdf)
Honey (http://en.wikipedia.org/wiki/Honey)
Honey (http://www.honey.com/)
Honey Definitions (http://www.bjcp.org/mead/honeydefs.pdf)
Honey Locator (http://www.honeylocator.com/)
Honey: A Reference Guide (http://www.bjcp.org/mead/refguide.pdf)
Sensory Attributes of Honey (http://www.bjcp.org/mead/sensory.pdf)
Shelf Life and Stability of Honey (http://www.bjcp.org/mead/shelf.pdf)
The Story of Honey (http://www.bjcp.org/mead/storyofhoneyweb.pdf)

Other Ingredients

Blending Country Wines: Tips from the Pros (http://www.winemakermag.com/component/resource/article/4-Feature/794-blending-country-wines-tips-from-the-pros)
Fall Spice Metheglin (http://byo.com/component/resource/article/Indices/51-Recipe%20Exchange/1785-fall-spice-metheglin)
Fruit Cocktail: Make a Melomel (http://byo.com/component/resource/article/Indices/46-Mead/684-fruit-cocktail-make-a-melomel)
Kiwi-Strawberry Melomel (http://byo.com/component/resource/article/Issues/258-January-February2009/1852-kiwi-strawberry-melomel)
Make a Spiced Metheglin (http://byo.com/component/resource/article/117-Departments/1086-make-a-spiced-metheglin)
Mead Acidity (http://www.bjcp.org/mead/ph_acid.pdf)
Mead Adjuncts (http://www.bjcp.org/mead/adjuncts.xls)
Old/New England Bracken (http://byo.com/component/resource/article/Indices/51-Recipe%20Exchange/1854-old-new-england-bracken)
Pyment (http://byo.com/component/resource/article/Recipes/107-Mead/2326-pyment)
Redstone Meadery Vanilla Bean - Cinnamon Stick Mead Clone (http://byo.com/component/resource/article/Issues/232-November%202005/2035-redstone-meadery-vanilla-beancinnamon-stick-mead-clone)
WineMaker Yeast Guide: 36 Great Strains (http://www.winemakermag.com/component/resource/article/4-Feature/769-winemaker-yeast-guide-36-great-strains)

Mead Judging and Troubleshooting

The BJCP Mead Judge Program (http://www.bjcp.org/mead/meadprogram.php)
BJCP Mead Exam ((http://www.bjcp.org/mead.php)
Factors Considered in Wine Evaluation ((http://www.bjcp.org/mead/Factors_Wine_Eval.pdf)
Mead Exam Format (http://www.bjcp.org/mead/examformat.php)
Mead Faults (http://www.bjcp.org/meadfaults.php)
Mead Judge Exam Question Pool (http://www.bjcp.org/mead/question_pool.pdf)
Mead Judging ((http://www.bjcp.org/mead/mead_judging.pdf)
Mead Styles Introduction (http://www.bjcp.org/2008styles/meadintro.php)
Melomel (Fruit Mead) (http://www.bjcp.org/2008styles/style25.php)
Other Mead (http://www.bjcp.org/2008styles/style26.php)

Sample Mead Judge Exam (http://www.bjcp.org/mead/Sample_Exam.pdf)
The BJCP Mead Judge Exam (http://www.bjcp.org/mead/BJCP_Mead_Exam.pdf)
Traditional Mead (http://www.bjcp.org/2008styles/style24.php)
Varietal Mead Comparison (http://www.bjcp.org/mead/VarietalMeadComparison.pdf)

Meaderies

Earl Estates Meadery (http://www.meadery.com/)
Montezuma Winery (http://www.montezumawinery.com/)
Mountain Meadows Mead (http://www.mountainmeadowsmead.com/)
Rabbits Foot Meadery (http://www.rabbitsfootmeadery.com/)
Redstone Meadery (http://www.redstonemeadery.com/)
Sky River Brewing (http://www.skyriverbrewing.com/)