

UC Cooperative Extension Cottage Foods

Honey

Developed by

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UC Cooperative Extension
CE Cottage Foods



What is Honey?



- Made when the nectar and sweet deposits from plants are gathered, modified and stored in honeycomb by honey bees.
- The definition of “honey” stipulates a pure product without the addition of any other substance such as water or other sweeteners.

Source: National Honey Board

Types of Honey



Liquid: The most popular and most versatile.

Crystallized: Cloudy and semi-solid or solid honey; simple to measure and easy to spread.



Popularity of Honey

According to the Use & Attitude Survey for 2013 by the National Honey Board:

- 70% of consumers reported that they purchased honey in the past year.
 - We eat about 1.4 lbs. of honey per person, per year, and rising, but...
 - We eat over 37 lbs. of high fructose corn syrup and 40 lbs. of white sugar per person, per year!
- 70% of consumers report that it is extremely or very important to them that honey is pure.
- 31% of people who purchase honey and say their households are consuming more honey than last year cite that honey is healthier/better for them.

Source: Use & Attitude Survey – 2013, The National Honey Board, Honey.com



Popularity of Honey



- Experts speak about small-batch honeys in terms associated with wine such as “balance,” “finish” and “overtone.”
- Chefs like using honeys and the flavors imparted by the flowers the honeys are drawn from, including buckwheat, orange blossom, and sage.



Honey is Versatile

- **Sweetener:** Honey is slightly sweeter than sugar, so less can be used to achieve the same sweetness intensity.
- **Flavor:** Honey imparts a unique flavor, and it balances and enhances the flavor profiles of other ingredients.
- **Emulsifier:** Honey acts as a binder and thickener.
- **Humectant:** Honey provides and retains moisture in dishes.



Using Honey in Cottage Foods



- Baked goods
- Preserves
- Nuts
- Candy
- Or pure and simple bottled honey!



Why Choose Honey?



1. It raises the perceived value of the product.
2. It is natural.
3. It can be locally sourced.
4. Consumers associate honey with helping bees.



Why *Not* to Choose Honey?



1. Honey imparts a distinct flavor.
2. Honey is more expensive than sugar (although less honey is needed).
3. Honey won't provide crispy cookies.
4. At the present time, US honey cannot be certified organic or non-GMO.



A side note on Organic...

- “100% Organic” (may use USDA and/or certifier seal)
- “Organic” (may use USDA and/or certifier seal) at least 95%
- “Made with Organic (Ingredients)” (may use certifier seal) 70% of ingredients.



Baking with Honey

When substituting honey for sugar, recipes may need adjustments.

1. Use equal amounts of honey for sugar up to 1 cup. Over 1 cup, replace each cup of sugar with $\frac{2}{3}$ to $\frac{3}{4}$ cup honey depending upon desired sweetness.
2. In recipes using more than one cup honey for sugar, it may be necessary to reduce liquids by $\frac{1}{4}$ cup per cup of honey.
3. If baking soda is not included in the recipe, add $\frac{1}{4}$ teaspoon of baking soda per 1 cup of honey to reduce the acidity of the honey and increase the volume of the finished product.
4. Lower baking temperature by 25 degrees and watch time carefully since products with honey brown faster.



Baking with Honey

When baking with honey, keep in mind...

1. Using honey in baked goods can extend their shelf life by inhibiting mold and keep the product moist.
2. When measuring honey, moisten a measuring spoon or cup with water, oil, or an egg before measuring the honey to prevent it from sticking to the measuring utensil.



Source: www.cooks.com and bakemag.com (Oct 2012)



Preserving with Honey

When substituting honey for sugar, recipes may need adjustments...



1. Honey can be substituted for up to half the sugar in a recipe.
2. Honey is heavier than sugar.
3. Honey has its own distinct flavor. Select a honey that complements the fruits being used.
4. Preserves made with honey are often runny. Adjust pectin to accommodate for the extra liquid and adjust cooking time a bit longer.
5. Make a sample batch!



Extracting and Processing Honey



Three options for legal sales:

1. The way it's always been done... such as with a Certified Producer Certificate (CPC) or as a registered CSA.
2. Approved Source Program (Mendocino, Napa, Sonoma Counties)
3. Cottage Food Operation

Regardless, local zoning rules still apply.



Extracting and Processing Honey



1. Create a dedicated space in your kitchen to use as an extraction room and to store supplies.
2. Bring the supers of honey into the kitchen and let them come to room temperature.



Extracting and Processing Honey



Supplies:

- Uncapping knife
- Uncapping tank
- Extractor with gate
- Course strainer
- 5 gallon bucket
- Refractometer (maybe)
- Jars, lids and labels



Storing and Packaging Honey

- **Temperature:**
 - While impractical, honey is ideally stored frozen to preserve aroma, flavor and color.
 - Crystallization is most rapid at 52-59°F (the temp of an air conditioned room).
 - Bottle at 104°F or higher to slow crystallization.
- **Keep Air-tight:** Store unpackaged honey in air-tight containers (eg. sanitized and sealed stainless steel drums) to protect from external moisture.
- **Shelf-life:** honey is susceptible to physical and chemical changes during storage (color darkening, loss of aroma and flavor). Shelf-life is difficult to define and can be indefinite. (2 years is often stated.)

Source: National Honey Board Fact Sheet



Labeling Honey



Labeling:

- CFO labeling requirements:
 - If processed in home kitchen = “Made in a Home Kitchen.”
 - If re-packaged in home kitchen = “Repackaged in a Home Kitchen.”
- In addition, label should meet the CA Food and Agriculture Code, Div.13, Chp.2, (covering quality, packaging and labeling including origin, flavor, and grading).
- Note: New guidelines are being evaluated by the FDA for Nutrition Facts that might affect honey labeling in the future. Check the National Honey Board Website for changes.



Marketing Honey



Packaging:

- Use glass jars or squeezable plastic containers so that consumers can see the honey's color.
- Elaborate glass jars can command higher retail price than honey in simple plastic containers.

Source: National Honey Board Fact Sheet

Branding:

- **Sell Yourself!** Create a catching name that represents you and your product.
- **Sell HONEY!** Use the word “honey” in the name of your product. Consumers like to see bees on labels.



Resources

- The National Honey Board, honey.com
- Baking with Honey, The National Honey Board, bakingwithhoney.com/formulas/
- Beekeeper's Handbook -- Fourth Edition, <http://anrcatalog.ucdavis.edu/Details.aspx?itemNo=3543>
- UC Davis Honey and Pollination Center, honey.ucdavis.edu
- Honey, Beekeeping & Processing Supplies: [Sacramento Beekeeping](#), [Beekind](#), [Mann Lake](#), [Dadant](#)
- Magazines: [Bee Culture](#) and [American Bee Journal](#)



Thank You

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