

Making Creams, Lotions, and Lip Balms

Support your Beekeeping Addiction and
Have Some Fun Doing It!

Landi Simone, EAS Master Beekeeper

Your Bees Make Some Really Great Stuff!



- Honey
- Beeswax
- Propolis
- Pollen
- Royal Jelly

As Their Keeper, You Get to Share in this Bounty

- Just like the products of your garden, you can enjoy or sell the things made by your bees “straight up” or you can combine them, add other ingredients, and create something new.








Products of the Hive

- HONEY
 - Delicious, healthful, never spoils, and has medicinal properties. Comes in many flavors.
- BEESWAX
 - Used in cosmetics since the Egyptians. Mild anti-inflammatory and antimicrobial. Lipids can absorb pesticides.
- PROPOLIS
 - Powerful antimicrobial. Kills bacteria, viruses and fungi. Allergen.
- POLLEN
 - Protein source for the bees. Lipids can absorb pesticides.
- ROYAL JELLY
 - Great for queen bees. No evidence it has any benefit to humans.

Products of the Hive

Will We Use Them?

- HONEY  **Yes!!**
 - Delicious, healthful, never spoils, and has medicinal properties. Comes in many flavors.
- BEESWAX  **Yes!! But must be clean.**
 - Used in cosmetics since the Egyptians. Mild anti-inflammatory and antimicrobial. Lipids can absorb pesticides.
- PROPOLIS  **Yes!! With caution.**
 - Powerful antimicrobial. Kills bacteria, viruses and fungi. Allergen.
- POLLEN  **No. Too risky.**
 - Protein source for the bees. Lipids can absorb pesticides.
- ROYAL JELLY  **No. No real benefit.**
 - Great for queen bees. No evidence it has any benefit to humans.

Value-Added Beeswax Products



First, a Word about Your Wax



- Most pesticides are lipophilic, i.e., attracted to and prone to bind chemically with fats (lipids.)
- Beeswax is a lipid. Extensive studies (Penn State) show MOST beeswax has some degree of pesticide contamination, including miticides.
- Use ONLY cappings wax, no brood comb in cosmetics.
- Consider having your wax tested.

Cleaning Your Wax, Step-by Step

Add water to your cappings and melt.



Pour into a container & let cool



Scrape off the "slum gum" from the bottom.

Cleaning Your Wax, cont'd.



Melt partially cleaned wax in a double boiler with disposable inner container



Pour through cloth filter into a disposable container for final cleaning



Candle-Making



Cover *everything* when pouring wax!



Making candles is fun and easy. The hardest part is picking the correct wick. Always test a single candle first!

Beeswax Candles and Ornaments are Great, But....



Your wax will go further and you'll make far more money
If you make soaps and cosmetics!



56 bars of soap made using
0.4# of beeswax

Retail value: \$336

(Value of other ingredients <\$20)

Two Candles Containing 0.4# of beeswax

Retail value: \$14.00

$\$336 - \$20 = \$316$ profit

$\$316 - \$14 = \$312$ more in your
pocket for the soap than for the
Candles.



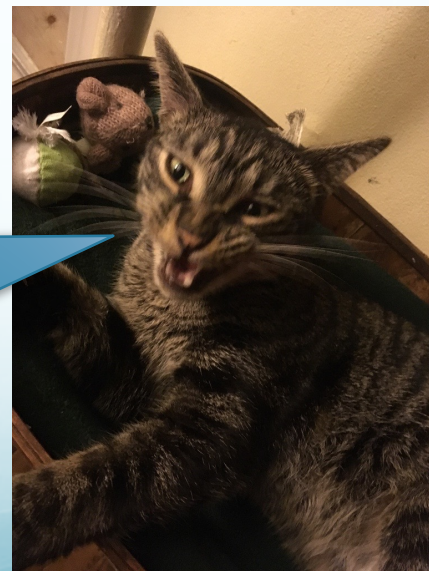
Listen up, folks!
You make over 22
times more money
if you use that wax
to make soap
rather than
making candles
with it!





I think I'd be too scared to make soap. Doesn't it use lye? Isn't that dangerous?

Mac, with normal safety precautions like goggles and gloves, even a mutt like you can make soap!



Handmade Soap is Fun and the Quality is Amazing

- ½ oz. to 1 oz. of wax per pound of soap adds great conditioning properties.
- There are many resources for learning to make soap.
- It's a great item to add to your product line, even if you just make a very simple beeswax and honey soap.
- Once you try it, you will NEVER use anything else on your skin!





Hey, Tucker! I thought we were going to be talking about lotions and lip balms! What's the deal with soap?



You're 100% right, little Buzz! The soap talk is later today. Thanks for the reminder!



Now Let's Talk about Creams, Lotions, and Lip Balms

These are another very profitable avenue for your creativity.

Honey and Beeswax in Personal Care Products

- Both honey and beeswax are humectants, attracting moisture.
- Both honey and beeswax have antimicrobial properties.
- Beeswax is anti-inflammatory so it can help with skin conditions like eczema.
- Beeswax is reportedly a natural exfoliator, gently removing dead skin cells.
- Beeswax provides a protective layer on the skin to help seal in moisture.

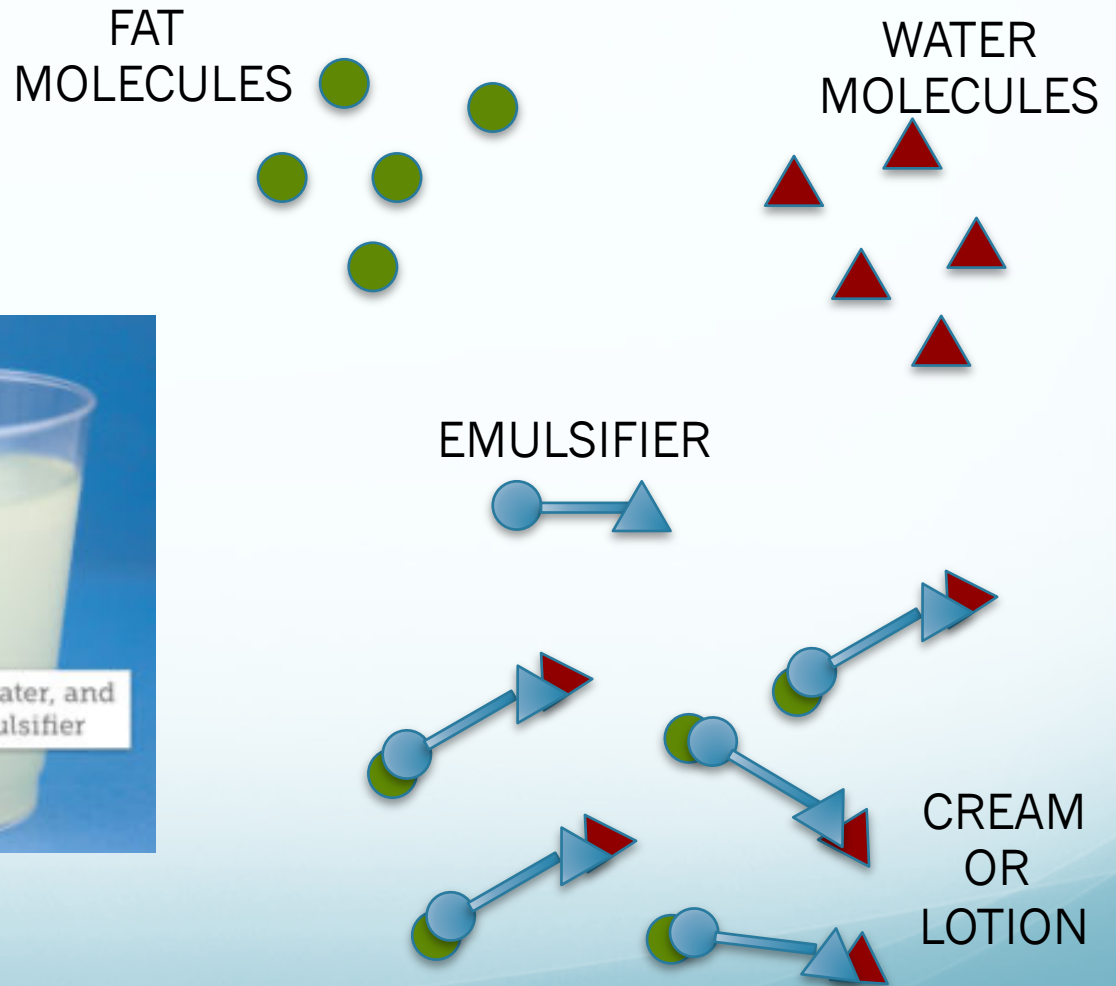
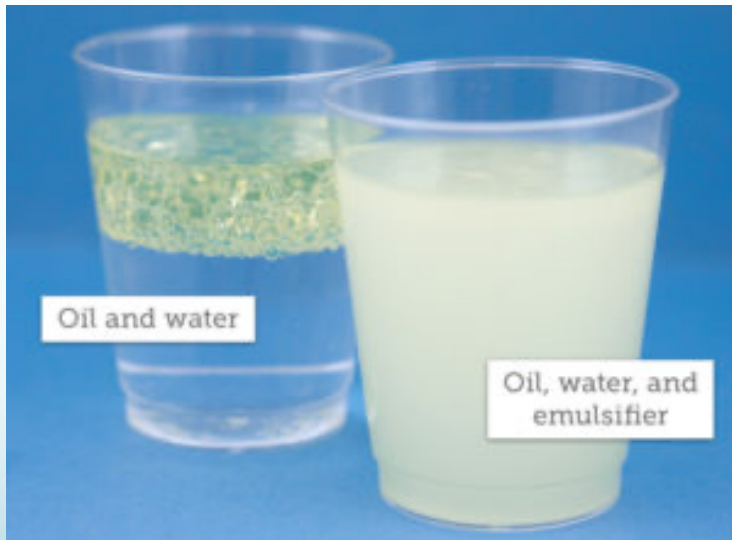
Bottom Line: Anything
you make with honey
and beeswax

Will be of much higher
quality than a similar
commercially-made
product.

What are Creams and Lotions?

- Emulsion: mixtures of oil and water (which actually *do* mix with the addition of an emulsifier).
- Two types:
 - Oil in water: lotion-like, penetrates skin
 - Water in oil: cream-like, barrier on skin
- Basic beeswax hand cream is a water-in-oil emulsion using borax as an emulsifier.
- Most recipes use emulsifying wax, aka “e-wax,” which is a chemically altered vegetable or petroleum-based wax treated with a detergent. Each manufacturer has a recommended use ratio, which should be **STRICTLY** followed for success, e.g., “Use 10-15% by weight.” It is better to use a bit more and back it off later than to not use enough and risk separation.

What is an Emulsifier?



Designing your Own Creams and Lotions



- Four phases:
 - Liquid phase
 - Oil phase
 - Emulsifier
 - Preservatives
- Proportions vary between creams and lotions
- Honey, if used, is part of the liquid phase.
- Beeswax, if used, is part of the oil phase,

Design Guidelines

- Proportion guidelines:
 - Water 40-70%
 - Oil 10-30%
 - Emulsifying wax 20% of oil weight
 - Stearic acid 0-5% (optional thickener)
 - Preservative: 0.1%-1.5%, depending on type chosen. Follow manufacturer's guidelines.
 - Fragrance: 1/2 – 1 Tbsp. per pound of product.

Higher amounts of water give you a lotion.
Higher amounts of oil give you a cream.

Equipment You'll Need

- The most important piece of equipment you need is a good, accurate scale to weigh ingredients.
- A stick blender is handy.
- Measuring spoons and cups.
- Ladles and funnels for pouring liquids into containers with narrow openings.
- Containers, lids, labels, possibly shrink wrap supplies.

Some Oils and Fats You May Want to Try

- Sweet almond oil ★
- Grapeseed oil
- Olive oil ★
- Safflower oil
- Sunflower oil ★
- Flaxseed oil
- Jojoba oil ★
- Mineral oil
- Avocado oil
- Shea butter ★
- Cocoa butter ★
- Coconut oil
- Lanolin
- Palm kernel oil
- Palm oil
- Mango butter
- Aloe butter ★

Each lends a different character to the finished product. You can get an idea of the characteristics of each by researching them but ultimately experimentation is your best tool.

And in the Liquid Phase, You Might Try:

- Herbal infusions such as chamomile tea
- Honey, honey, honey!
- Glycerin
- Aloe water
- Coconut water
- Rose water or orange blossom water

Experiment in Small Batches

- Nothing is more disappointing than to have your cream separate or go moldy after you spent so much time, effort, and money making it!
- Double and triple check the amounts of both preservatives and emulsifying wax in your recipes.
- Keep your work area scrupulously clean and sterilize your tools.
- Let a recipe sit for six months before bottling commercially to be sure it is stable.



REMEMBER THAT, LIKE PURE HONEY AND BEESWAX, CREAMS AND LOTIONS SHOULD NEVER BE OVERHEATED!

About Preservatives

- If the recipe contains water and a non-mineral oil, it needs a preservative. If you do not use one, you must keep the cream in the refrigerator and use it within two weeks.
- My favorite is Optiphen Plus.
 - Higher temperature range for adding product
 - Does NOT contain formaldehyde
 - Does NOT contain propylene glycol
 - Very effective in preventing spoilage

Gooserock Farm Beeswax Hand Cream (Makes about 20 2-ounce jars.)

20 fluid ounces pure water (by volume)

16 ounces (by volume) light 70-weight mineral oil (available as 70 FG Crystal Plus Oil from STE Oil Co., Inc., www.steoil.com: 800-967-1931.)

7 ounces by weight clean beeswax

1 Tablespoon borax (as in 20 Mule Team, carried by most supermarkets in the laundry detergent section)

1 Tablespoon fragrance or essential oil of your choice (optional)

Combine the water and borax and bring to a simmer. Do NOT boil. It should just be steaming. In a separate container, melt together the beeswax and the mineral oil over low heat. (You may, for safety's sake, choose to do this over a double boiler, but I have found direct heat works fine provided you do not leave the area, you are melting the wax with oil, AND you use very low heat.) When the wax is melted, add the water-borax mixture. Stir in the essential or fragrance oil, and whisk or beat the mixture for a minute until well combined. Immediately pour into jars. The cream will solidify as it cools. You can combine the ingredients in an old crock pot on the low setting, which gives a bit more bottling time if making a larger batch. Be careful not to overheat the ingredients or the cream will not be as soft when cool. Both the oil-wax and the water-borax should be just above the melting point of beeswax (150°F).

Lotion Bars

- Lotion bars are very, very easy.
- Just melt together:
 - 1/3 beeswax
 - 1/3 liquid oil (e.g. grapeseed or jojoba)
 - 1/3 solid oil (e.g. shea butter or coconut oil)
- Pour the mixture into an attractive mold.
- No water, so there's no need for a preservative.
- All measures are *by weight*.



Lotion bars are great for moisturizing any part of you other than the face: feet, elbows, knees, hands... and they appeal to customers who want a 100% natural product.

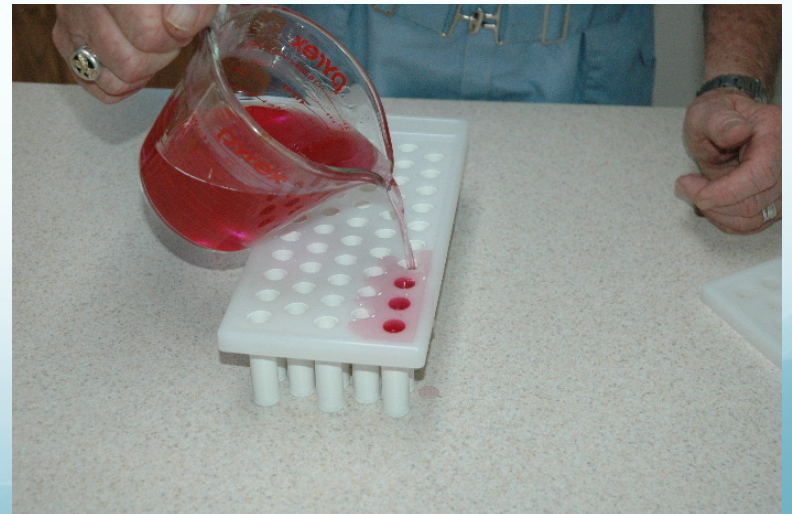
Lip Balms



Lip Balms are Easy!

- Lip balms also have no water, hence they do not need a preservative.
- Many recipes add Vitamin E oil as an antioxidant. (This is NOT a preservative.)
- Lip balms are a combination of solid and liquid oils, and wax: beeswax. There are many good recipes on-line. Look for a good balance between the oils and the wax.
- Because the product is used on the mouth, be sure to use only your cleanest, best cappings wax. Do not risk having pesticides in your beeswax by using melted brood comb or mixed wax from a solar wax melter!

Very Helpful Tool for Making Lip Balm: Filling Tray



Using Propolis in Your Products

- Propolis can be a great addition to your products because of its antimicrobial properties but you must be VERY cautious how you label it to avoid violating FDA labeling laws.
- You can either use it as a powder or stir it in while heating to release the volatile organic compounds.
- You can also make propolis extract, or tincture.



Cleaning Propolis

- Fill a 1 pound clean metal coffee can about 1/3 full of collected propolis and add about the same amount of hot water.
- Set in a 200° oven for about 2 hours. Stir occasionally. You can also heat very gently over direct heat until gummy, stirring continuously.
- Remove, let cool, and pour off the dirty water.
- Freeze the can with the propolis in it.
- Scrape off any bits of wood or gunk that might be adhering to the surface of the propolis blob at the bottom of the can.
- Chip out the clean propolis with hammer and chisel.

Cleaned Propolis



Grinding the Propolis

- After the propolis has been cleaned and is perfectly dry, you can grind it to a fine powder.
- Use an electric coffee bean grinder which you have dedicated to this purpose.
- The propolis should be cold. You can even freeze it. The colder it is, the more brittle, and the easier it will grind up.
- Sift out any chunks left.



Using Powdered Propolis



- Powdered propolis is nice because the finished cream or lip balm has little flecks of it distributed throughout the product.
- The temperature must be very carefully controlled. If the mixture is allowed to get hotter than about 170° the propolis will melt in a blob at the bottom of the pot.

To Make Propolis Extract

- First clean the propolis if it needs it. Propolis from a trap generally does not and scrapings may be clean enough if you are very careful how you take them.
- Fill a large container about half full of propolis chunks. Add Everclear (grain alcohol) to the brim. Set aside in a cool, dark place for six weeks.
- Filter the extract and bottle it.



Be VERY careful how you label and market propolis products!



Gooserock Farm Propolis Extract \$15.00/1 oz.

Propolis is made by bees from tree resins. It has antibacterial, antiviral, and antifungal properties.

Historically, propolis has been used to treat many conditions such as sore throats, cold sores, nail fungus, acne, in wound dressings, and many others.

Contains grain alcohol and pure local propolis from our own bees.

This product is not intended to diagnose, treat, or prevent any illness. Some people have experienced allergic reactions to propolis. Consult a physician prior to use.



Gooserock Farm Propolis Extract

1 fl. oz. (29 ml)

Ingredients: Grain alcohol, propolis. *Historical dosage:* 10-20 drops 3 times daily. May be mixed with a small (1/2 tsp.) amount of honey, if desired. *Disclaimer:* This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, or prevent any illness. Some people have experienced allergic reactions to propolis. Consult a physician prior to use.

101-B Taylortown Road, Montville, NJ www.gooserockfarm.com

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Thank you!

And thanks to my bees for giving me such wonderful hive products to play with!