## BASICS OF HERBALISM

## Simple Syrup

A simple syrup is a mixture of sugar and water.It can be used to deliver a tincture or unpleasent herbal blend. Useful for children.

In making a simple syrup the key is to use one part water to two parts sugar. In a sauce pan, bring the water to a boil. Add in the sugar stirring vigorously until it is all dissolved. Let the mixture cool. Store in an amber bottle in a cool, dry place.

## Oil Infusion

An oil infusion can be made two ways, the hot method or the folk method. If the oil is needed in a hurry, it can be made using the hot method. If there is time the oil should be infused with the folk method to get maximum benefit from the leaves.

## Preparation

Cut and bruise the appropriate parts of the herbs and place them into a bottle with a lid. Pack the bottle with the plant materials, but not so much that the oil can not saturate the material completely. Pour the oil over the plants covering them completely with $1 / 4$ inch oil on top. Cap the bottle. Continue on using either...

## Hot Method

In the hot method, this bottle is now heated continuously for three hours in a water bath. To prepare a water bath, fill a sauce pan with enough water to reach the neck of the bottle when placed in the pan. Bring this water to a boil and then place the bottle into the water. Turn the burner down slightly and allow it to warm for at least 3 hours. Strain the infusion and put in a clean amber bottle.

## Folk Method

The folk method is similar to maceration as you allow the oil infusion set for 2 weeks shaking often. After capping the bottle, place the infusion in the solar dryer or in a paper bag and put it in the direct sun for 14 days. At the end of the 2 weeks, strain the infusion and put in a clean amber bottle.

## Glycerin Infusion

A glycerin infusion should be made in the folk method.

## Folk Method

Cut and bruise the appropriate parts of the herbs and place them into a bottle with a lid. Pack the bottle with the plant materials, but not so much that the glycerin can not saturate the material completely. Pour the glycerin over the plants covering them completely with $1 / 4$ inch glycerin on top. Cap the bottle. Place the infusion in the solar dryer or in a paper bag and put it in the direct sun for 14 days. At the end of the 2 weeks, strain the infusion and put it in a clean amber bottle.

## Tinctures

A tincture can either be in the folk manner or the Weight/Volume method. I prefer making the tincture the folk manner with rum, but will include both methods in this manual.

## Menstruums

You can make the tincture using alcohol, vinegar, or a mixture of alcohol and water.
Alcohol - Not many life forms or enzymes can thrive for long when immersed in a volume of alcohol or even in diluted alcohol, and therefore changes due to disintegration and decomposition are greatly slowed down; shelf life is significantly increased. The alcohol used in making a tincture can be any sort of drinking alcohol with over 35\% alcohol content (about 40 proof), the higher the alcohol content the better (the best is 190proof grain alcohol). I have been using Ron Plata or Flor de Caña in my tinctures.
Vinegar - As a preservative vinegar is excellent, though inferior to dilute alcohol, although you can add a little alcohol to vinegar solutions to extend their preservations even further. Apple cider vinegar is the recommended type of vinegar because of its inherent health benefits.
Alcohol-water - The blending of alcohol with water is an ideal solution for maximum plant constituent extraction, while lowering alcohol use. A mixture of 50 percent ethylalchol and 50 percent water is common, although we use $40 \%$ alcohol mixture anyway, it may be wise to stick with undiluted rum.

Tinctures can be made with either dry or fresh herbs. This does not affect the folk method, but does affect the Weight/Volume method.

## Folk Method - Dry or Fresh

Gather up the desired herbs and wash them off. Allow them to dry (and wilt just a bit) in the solar dryer for 20 minutes - 1 hour. Cut them up very finely and put them into an amber glass bottle with a lid. Pack the bottle as full as possible, leaving about $1 / 4$ inches from the top. Pour the alcohol of choice over the herbs, filling the bottle up. Cap the bottle tightly and shake vigorously. Label the bottle and store in a cool, dry place for 14 days, shaking daily. After 2 weeks strain the tincture with cotton and store it in a clean amber glass bottle.

Weight/Volume Method - Dry Herbs 1:5 (20 percent tincture)
Measure the amount of dry herb you wish to make a tincture out of. Measure this in grams. Multiply this amount by 5 and this is the amount of menstruum you should use. The menstruum can be made of an alcohol/water combination or just alcohol.

## Weight/Volume Method - Fresh Herbs 1:2 (50 percent tincture)

Chop the herbs in to small pieces and measure them in grams. Multiply this amount by 2 and this is the amount of menstruum you should use. The menstruum can be made of an alcohol/water combination or just alcohol.

## Tea (Infusions)

An infusion is an extraction of plant constituent with hot water. During infusion the plants is not subjected to boiling, although it is common to $p$
our boiling water over the herb. Because plant parts that are normally infused are volatile, infusions should be conducted in closed vessels. Fresh herbs should be cut into small pieces or bruised prior to infusion. Dried herbs should be powdered.

A single dose of tea should administer 3-5 grams of herb.
Unless otherwise appropriate, hot infusions are made of 1 part coarsely ground herb (2 parts if using fresh herbs) to 20 parts of boiling water.
Sugar and honey can always be added.

## Soap Recipe

## Equipment:

- Protective eyewear
- Gloves
- Glass container
- Metric scale
- Blender
- Hot plate
- Tongue depressor
- Stainless steel pot


## Ingredients:

- Oil (either infused with the desired herb or derived from the herb)
- Lye **Lye is a very caustic material. When handling lye, tie a bandana over your nose and mouth; wear protective eye glasses, and gloves. **
- Water
- Add-ins (barley, oatmeal, achiote...) if desired


## Directions:

Measuring

1. Begin with a set amount of oil. All the measurements for lye or water are based off the amount of oil used. Weigh the amount of oil you have and write it down (in ounces).
2. Fill a sauce pan with enough water to reach the neck of the bottle of oil. Bring this water to a boil, place the bottle of oil in the sauce pan and turn the burner down slightly.
3. Using the chart below, calculate the amount of lye and water needed for the type of oil being used. $\boldsymbol{* * * W \text { Weight } \text { of water needed } = \text { Total weight of fat in recipe times } 0 . 3 8 * * * ~}$
4. Measure out this amount of lye and water.

## Mixing

5. Pour the water into a glass beaker. Having the water as cool as possible will help speed up the process as the lye will heat up the water, and the desired temperature for the mixture is room temperature.
6. Slowly, add the lye stirring in one direction. The lye will cloud up the water and then become clear again once it is well mixed. Again, the water will be very hot at this point, and therefore the glass will be hot as well. Use caution during this process.

## **Lye is a very caustic material. When handling lye, tie a bandana over your nose and mouth; wear protective eye glasses, and gloves. **

7. Set the lye mixture aside and allow it to cool to room temperature.
8. When the lye-water has reached room temperature and the oil is hot without boiling (the hotter the oil, the easier the mixing but the easier it is for separation to occur) it is time to mix the two. Take the oil out of the water bath and begin stirring it one direction. Carefully begin pouring in the lye water in a thin stream while continuously stirring.

## Saponification

9. Continue to stir (or mix using the blender) this mixture vigorously in one direction while the process of saponification ("trace") takes place. The more finely the lye and fat molecules are intermixed the faster they will saponify. Using a blender, the trace stage can be reached in minutes instead of hours. "Trace" occurs when the oil-lye-water mixture has
thickened up to a pudding like consistency. When you can drip a bit of the mixture onto itself and it leaves a "trace", meaning it does not sink back in without leaving a mark on the surface, it is ready to be poured into the mold. At this time you can add any mix-ins.
10. The best type of mold is a wooden box lined with fabric. Pour the thickened mixture into the mold and allow it to set for up to a month. After about a week you can cut the soap into pieces using a piece of string.
11. The soap will continue to saponify for a few weeks. It might be hot to the touch even a few days after the mixing, as the lye and oil is still reacting. The longer the soap has to cure, the more stable and durable it will be. Of course there are several variables involved and the kind of oil used, the percentage of fat in the soap and the drying conditions will affect the curing of the soap.

| Vegetable <br> Fat | $\mathbf{0 \%}$ | $\mathbf{1 \%}$ | $\mathbf{2 \%}$ | $\mathbf{3 \%}$ | $\mathbf{4 \%}$ | $\mathbf{5 \%}$ | $\mathbf{6 \%}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Canola Oil | 0.137 | 0.136 | 0.134 | 0.133 | 0.131 | 0.130 | 0.129 |
| Castor Oil | 0.129 | 0.127 | 0.126 | 0.125 | 0.123 | 0.122 | 0.121 |
| Coconut | 0.184 | 0.182 | 0.180 | 0.178 | 0.177 | 0.175 | 0.173 |
| Corn Oil | 0.136 | 0.134 | 0.133 | 0.131 | 0.130 | 0.129 | 0.127 |
| Cottonseed | 0.138 | 0.137 | 0.136 | 0.134 | 0.133 | 0.131 | 0.130 |
| Olive Oil | 0.136 | 0.134 | 0.133 | 0.131 | 0.130 | 0.129 | 0.127 |
| Palm Oil | 0.142 | 0.141 | 0.139 | 0.138 | 0.136 | 0.135 | 0.133 |
| Peanut Oil | 0.136 | 0.134 | 0.133 | 0.131 | 0.130 | 0.129 | 0.127 |
| Safflower | 0.136 | 0.134 | 0.133 | 0.131 | 0.130 | 0.129 | 0.127 |
| Soybean | 0.136 | 0.134 | 0.133 | 0.131 | 0.130 | 0.129 | 0.127 |
| Sunflower | 0.137 | 0.135 | 0.134 | 0.132 | 0.131 | 0.130 | 0.128 |

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## EXAMPLE:

For 8 ounces of soybean oil with 2 ounces of coconut oil, to make a 5\% fat soap:

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LYE
8*0.129 = 1.032
2*0.175 = . 35
1.032+.35 = 1.382 ounces of lye
WATER
10*0.38=3.8 ounces of water
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[^0]:    Chart information adapted from "The Soap Making Homepage" http://waltonfeed.com/old/soaphome.html

