

Traditional Soap Making

Some of the chemicals used in soap making can be harmful. People experimenting with the methods and information given in these materials, or trying soaps made from the information given in these materials, do so at their own risk. There are no implied or other under-takings given in these materials. References to 'medicated', or the nature of any soap's effect on human beings is entirely conditional upon each individual's allergies and other health considerations. Poorly made soap can 'burn' your skin. The production of safe soap takes time and patience, and comes with the resulting experience.

MATERIALS & EQUIPMENT FOR SOAP MAKING

five main things needed to make soap.

They are:

- 1) White (wood) ash,
- 2) Rain or Spring Water
- 3) Animal fats (grease)
- 4) Plant oils,
- 5) Salt

In getting the fat ready, sometimes lemon juice or vinegar, potatoes or rice are needed. You will need some of the following objects:

Plastic buckets or big fired clay jars or pots, and large cast iron or stainless steel boiling pots can be used. NEVER use aluminum or tin things - AT ALL!

Aluminum and tin are very badly corroded by the caustic chemical used in soap making. Wooden spoons or stirring sticks will also be needed.

Something in which to set the new soap will be needed, as shown in the diagrams of these materials. Clean cloths or rags will also be needed to filter out unwanted things from some liquids.

MAKING "LYE WATER:

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Soap making uses a 'caustic solution' known as "Lye Water". When available, Caustic Soda is used. Here we will make Lye Water out of certain wood ashes and "soft water".

1) White Ashes; Dried palm branches, dried out banana peels, cocoa pods, kapok tree wood, oak wood, (or for really white soap, apple tree wood) make the best lye ashes. Ordinary wood used in cooking fires will do. Whatever wood is used, it should be burned in a very hot fire to make very white ashes.

When cold, these are stored in a covered plastic bucket or wooden barrel, or stainless steel container. If these are not available, a clay pot-jar which has been fired in a pottery making kiln (not just dried in the sun). A wooden drum or barrel which has a tap at the right is best.

2) Soft Water from a spring or from showers of rain is called "soft water", because it does not have metallic or acidic chemicals in it. This makes it useful for soap making, as there are no other chemicals in it. It will sometimes need to have a "washing soda" or "baking soda" in added to it. Otherwise some of the chemicals in the water will get in the way of making the soap. If you are using 'ordinary' water and you want to test it to see if some soda needs to be added, simply try to make soap bubble up (foam) in it. If the soap easily foams up, the water is probably ok as it is. If not, try adding a little bit of soda at a time stirring it to make it disappear, until the water will foam the soap up. Then add the same amount of soda to the same amounts of the water that you quarter) of a bucket of water, and you ended up needing 1/8 (an eighth) of a cup of soda, then you would need 4/8 (or 1/2-half) a cup of soda for a full bucket of 'ordinary' water. However you have got it, store the "soft water containers. (Again, a clay-jar as described "SAFE" CONTAINERS". In covered wooden, plastic, or stainless steel buckets or any of the types of containers, buckets, barrels or jars described in the White Ashes or Soft Water sections are called" safe containers".

If you are going to use a large barrel or drum to make the lye water in and it has a tap or hole at the right, place some kind of filter on Fill the barrel

with white ashes to about four inches (10 cm or 0.1 meter) below the top. Boil half (1/2) a bucket full of soft water (about 10 pints or six liter), and pour over the ashes. Slowly add more cold soft water until liquid drips out of the barrel. Close the tap or block the hole. Add more ashes to top the barrel up again, and more soft water. Do not add so much water that the ashes swim. Leave to stand for four or more hours (or over night if you have the time). Later pour the brownish lye water into a plastic or other "safe" container(s). Then pour back through the ashes again. Let the lye water drip into "safe" containers. When the brown lye water stops coming out of the barrel, or ash container, then pour four to five pints (2½ to three liter) of soft water through the ashes, collecting the lye which comes out in a separate "safe" container (as this lye may be weaker than the first lot). Repeat this using two to three pints (one to two liter) of soft water, until no more brown liquid comes out of the ashes.; Either put the lye into "safe" bottles, or cover the "safe" containers which it is in. Dig the ashes into the vegetable garden.

KEEP LYE WATER AWAY FROM CHILDREN. LYE WATER IS DANGEROUS!

LYE WATER STRENGTH.

If an egg or potato will float just below half way, or a chicken feather starts to dissolve in it, then the lye water is at the right strength. If the egg will not float, then the lye water could be boiled down if you wanted it to be stronger. If the egg seems to pop up too far, add a little bit of soft water (a cup at a time) stirring the lye water, until the egg floats so that its head pops up.

3) Animal Fat

(grease) The fat of most animals can be used in the making of soap. Grease made from beef fat, makes the best soap. Beef fat is taken from a cow, calf, steer, or bull, or bullock. Once the meat of the animal has been cut away, the fat is chopped into bits and placed in a cast iron frying pan or a (not too deep) wide pot. Melted slowly over a low heat, each pound (450 gm or 0.450 kg) produces about one cup of useful grease. Pour the melted grease through straining cloths

(cheese-cloth).

The grease must now be "washed". Add an equal amount of water, and bring to the boil, take off the heat, and add one quarter (1/4) as much cold water. Leave the water and grease to cool. When the fat has hardened, scrape the dirty stuff off the fat. If the fat still looks dirty repeat until clean. On the last washing use twice as much water, and before boiling add one table spoon of salt (80 ml salt crystals). If fat which has been used for cooking is to be used for soap making, then you may need to get rid of smells. For each cup of smelly fat, add two tablespoons of vinegar or lemon juice in half a cup of water and boil. Any fat which smells "off" should be treated in this way. Another method for treating smelly fat, when lemon juice or vinegar is not available, is to use sour milk. Melt the fat, and to each cup of fat add one cup of sour milk, and cook. When cooked, add cold water as before and let cool. Cooking potatoes or rice in fat can also help, one medium sized potato for each three cups of melted fat. Strain off fat when cooked and pour in cold water as before. All these ways will help to purify fat if it is rancid or smelly. If the fat that you wish to use is discolored, Potassium permanganate (if you can get some) will help to "clean" it. Dissolve a few crystals in two cups of soft water added to two cups of discolored melted fat. The cleaned fat

will harden as it cools and be able to be taken off the top of the liquid.

[Potassium permanganate is purple in color and is sometimes called Kondies Crystals. It should not cost much at all.] Washed fat, can be stored in a cool airy place for a few weeks before being made into soaps

4) Plant Oils;

Oils may sometimes be used instead of either some or all of the animal fats, described later on as being, used in making soap. (Please read the section below on Fats & Oils &Caustic Soda). Mineral oils (like the ones used in motors or engines) are not ok. Any oils which are good for eating or cooking, can be used in making soap. One of the best is said to be Coconut oil. Groundnut, Shea butter, Cocoa butter, Sun flower and many other vegetable oils are also used

5) Salt

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"Common" salt is used in making soap. Any salt made out of sea water (or from some stagnant lakes) which can be eaten with food, should be ok.

FATS & OILS & CAUSTIC SODA

Lye water made from wood ashes or pot ash powder, is not as easy to work with, as lye made from caustic soda. Caustic Soda manages to work both oils and fats into soap (saponification) quite quickly and with little trouble. However, the amounts of caustic soda and grease or oil, have to be very carefully measured. As said earlier, caustic soda is not able to be got in some places for one reason or another. The draw back of using wood ash lye, is that it may not always work with all the oils that caustic soda is able to turn into soap.

Coconut oil has been used successfully with wood ash lye, but often needs a lot of beef tallow grease with it. It will take some trial and error with small amounts of oils and lye to see which of the oils you have available to you, that you can use with wood ash lye. In many cases you will at least be able to make a soft liquid soap, using various oils, even if you can not make hard bar soaps. Sometimes extra boiling will help, but there would be a limit to how much boiling was really worth while doing.

Simple hard soap making has seven main steps to it:

1. Getting the right mixture of lye and grease, called proving".
2. "Boiling down" -removing unwanted water, and checking for what is
- 3.Treating with salt to remove water, impurities, and glycerine, a process called "graining".
- 4.Adding colourings and or perfumes.
5. Pouring into moulds, called "setting".
6. Breaking the "green" soap out of the moulds and splitting it into finished sizes.
7. Drying and airing the "green" soap. Freshly made soap is called "green soap". It is not green in colour. But is dangerous to touch until dried and aired for a few weeks.

PROVING

(Information1) Getting the right mixture of grease and lye is

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perhaps the most important step of soap making. If too much lye is left in the soap, the soap will be able to "burn" the skin. Also, the soap may not "set" properly. Too much grease causes its own problems as well.

Three different main ways of "proving" the soap are explained later on. Three, because some people will find one way better, while others will find another one works better for them. In "proving" the soap, either one or more of the different ways can be used. When making soap for the first few times however, you may like to try them all out.

Mixing Greases

If you are wanting to mix beef tallow grease with another fat grease, like mutton (sheep) or lard (pig), it is better to only replace one fifth (1/5th) of the beef tallow grease, with the other grease. For example, if you were going to use four pints of melted beef tallow gt; grease, you could use one pint of another kind of grease mixed in. This would probably be useful as a clothes washing soap.

DONENESS -

(Information 2) After having "proved" the soap mixture, an eye is kept on when the heating has got rid of the water that is not needed. During "boiling down", the mixture rises up the sides of the pot with many small bubbles (called foaming or frothing). This is the stage when water is going out of the mixture while the heat is kept going. When the foaming starts to slow down, the froth will go towards the right of the pot. Large white round bubbles will appear. If you are only making "soft" liquid soap, now would be the time to store it.

GRAINING AND REWORKING -

(Information 3) When aiming to make a "hard" soap, salt is added at this point. Any sort of eating salt like ones made from sea water should do.

Salting the soap mixture, makes the soap rise to the top, often looking quite "grainy"- like sand. So this step is sometimes called "graining". This step makes a good solid soap for washing clothes. But it also removes some of the things which make soap nice and safer for people to use on themselves. Soaps which are good for people to use are called "toilet" soaps. However, clothes soaps can be used by people -if properly "proved". To make a "grained" soap more

useful for humans, it is "reworked". This involves remelting the "green" soap, and adding some more grease and or oils and lye. The same "proving" and checking for "doneness", steps are followed as for simple soap making, without "graining" adding salt.

COLORINGS AND PERFUMES -

(Information 4) There are perfumes and colorings which may be bought as powders or as liquids. These are added at the last "remelt" before pouring the soap into the moulds to "set" (step 5). These materials

explain a method of using flowers to put perfume right into the beef grease before the soap is actually made. This is a cheaper way of doing it. If you are using liquid perfumes, they will sometimes be affected by heat, so add them well after the soap has been remelted, and stir in gently before the soap goes hard again. When trying out new perfumes, first test them on a small amount of melted soap, so that you can see how much will be needed in all.

Perfumes will leave the soap and go into the air after a time, so use a bit more perfume than you might think you will need, when you are making the soap. Soap made from wood ash lye, is a bit brownish. Apple wood ash makes a whiter soap. As does using caustic soda instead of ash lye.

BREAKING OUT OF MOULDS & "SPLITTING"

Remember that the soap is "green" and must be handled carefully. Use rubber gloves, or grease your hands up a lot when touching the soap at this stage. When the soap has hardened, remove it from the moulds. If it is already in the shape that you want, then stack it, to air and harden further. If you want to make it smaller, "split" it using a fine wire, or a strong thin cord. Using a knife will normally chip the soap and make it break up into shapes which are not so useful.

DRYING & AIRING

Leave the soap to air and dry, becoming a lot harder, for about a month. Dry hard soap takes longer to use up. Stack it in a way that will let as much air get around it as is possible. Keep sunlight and water away! When the soap is dry and hard you can polish it with a soft cloth, and even wrap it in shiny or "grease proof" paper if you want to. After using soap, always put it in a clean

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dry place away from sunlight and metal containers or shelves.

FAILED SOAP

If your soap seems to have gone completely wrong, you will often be able to "recover" it by "grating" and reworking it using more beef grease and lye, and using the "proving" and "doneness" checks. You could also need to use the salt "graining" method again. This means that if you wish a higher quality soap, you would need to "re-work" the green soap to put back in some of the better qualities again. If your

soap has too much of a bite to it, then you will need to re-work it again as well. This is caused by there still being too much lye left in the soap.

Sometimes the soap will not go hard. Continue boiling it, adding more grease and lye, and using the "proving" and "doneness" checks. THIS EXTRA BOILING CAN TAKE HOURS SOMETIMES. The whole matter of learning to make soap, has a lot of trial and error in it.