

The School of
Evolutionary
Herbalism

LESSON 2:
EXTRACTION OF
THE SALT PRINCIPLE

THE HERBAL ALCHEMY TRAINING SESSIONS





EXTRACTION OF THE SALT PRINCIPLE

The extraction of the Salt Principle is a process of extracting the water soluble alkaline minerals in plants, which is a *critical step* in the creation of many types of spagyric medicines- from simple Spagyric Tinctures and Spagyric Essences, to the more complex preparations of the Plant Stone or the Quintessence.

These processes are a gradual cleansing of the plant's body both physically and spiritually. This is achieved through utilizing the Fire, Water, and Earth, opening up the plant to these Elemental forces so it may reach a purified state that can receive the refined Soul and Spirit. When the Salt Principle is included in the medicines you prepare, they are driven deeper into the physical body, its organs, systems, and tissues, as well as into the psyche and soul.

Be sure to download the other PDFs in this Herbal Alchemy Training Session and read the article on the 3 Philosophical Principles first, so you get an understanding of the overall context for spagyrics, or herbal alchemy, and how the principles of Salt, Mercury and Sulfur represent the wholeness of the plants.

Also check out the Spagyric Tincture Cosmology, which shows a map of the preparation of the entire Spagyric Tincture. The tutorial below gives you pictures and the specific step-by-step processes for working with the mineral salts. Information on creating a simple herbal tincture is not included here, though can be learned simply through some research. (Check out "The Herbal Medicine Makers Handbook" by James Green.)

This process can be done alongside any type of liquid extract or tincturing method, including vinegar extracts, macerations, percolations, soxhlet extractions, or other forms of digestion of plant material. It will not work for oil extracts, such as salves or topical oils, as you are extracting the water soluble minerals- they thus do not combine with oils or fats.

An important note here, is that all alchemical works must be done in alignment with the planetary influences of the plants you are working with. Observing the planetary ruler of the day of the week, as well as the specific time of the day, is a critical element of creating true alchemical medicines. A good resource to research this information is <http://lunarium.co.uk/>.

Below outlines a pictorial representation of the entire process of separating and purifying the Salt Principle. This simple process can be done on *any* plant that you prepare as a tincture, with the finished alkali minerals being added back into the liquid extract.

Required Equipment

The things required for extracting the Salt Principle can typically be done with things you already have in your home, though there are a few things that can be purchased for low cost that makes the process a bit smoother, as well as purer.

- Plant Material: This is typically plants that have already been extracted- often the spent marc after preparing a tincture- or the left over herb you've pressed from your tincture.
- Calcination Vessel: The most appropriate vessel for this is a crucible, an unglazed clay pot that has been kiln fired and thus tolerates high temperatures. While some practitioners use cast iron pots, I don't recommend this, as iron is one of the 7 planetary metals that is said to have a strong Mars influence. These can be purchased online for under \$30. Once the plants are done incinerating, a pyrex baking dish can be used in the oven.
- Fire Source: You will need a way to burn the plants down to an ash. This can be done in a wood burning stove, campfire, barbecue, or even a camp stove. **DO NOT** use your oven or a kiln for initial incineration, as it will smoke out your house! After it's done incinerating, the high broil setting of your oven or even the stovetop can be used- but I always prefer open Fire.
- Mortar and Pestle: This will be used to grind the ash down to a fine powder. I always recommend doing this by hand and not using a coffee grinder, blender or something electric.
- Mason Jar: The herbalist's best friend. Depending on the amount of plant material used you will need anywhere from 1/2 pint, to 1 quart mason jars. For 1 gallon batches of tincture, usually 1 pint will suffice.
- Coffee Filter: This will be used to filter the water soluble minerals from the insoluble minerals. I recommend using unbleached, organic coffee filters if possible. A rubber band can be helpful as well to secure the coffee filter to the mason jar.

- Patience and Presence!! Sometimes separating and purifying the mineral salts in plants can take some time, so it's important to be patient with the process. Your presence is critical as well, maintaining a clear mind and a heart that is connected to the work. Being in a state of prayer, mindfulness, and presence is a critical piece to opening yourself to the inner teachings represented by the outer work of alchemical works.

Step #1: Calcination

The calcination process is essentially burning the plant down to an ash. The first step is to take your extracted plant material that has been separated, or pressed out of the liquid extract (we will assume a tincture) and dehydrate it, as it tends to calcine much more readily. This is best done in a crucible, a neutral, unglazed, kiln fired clay vessel. It is best to avoid cast iron or aluminum vessels, as they taint the calcination process.

Place the dried plant material into the crucible and into the Fire. I recommend covering it with a lid so wood ash doesn't get mixed into the materials- I use kiln shelving for this purpose. The initial incineration of the plant can be done in a wood stove, a barbecue, fire pit, or even a camp stove. It must be done either outside, or in something that has adequate ventilation, as naturally it's going to produce a lot of smoke!

If you are doing multiple batches, it's important to draw out a map of your crucible layout and label each one clearly, as once the plants are burned down it's pretty much impossible to differentiate them as they all look like ash!

This process is burning away all of the structural components of the plant- cellulose, fibers etc. and refining it down to the minerals.



Incinerate the plants long enough until it doesn't produce smoke anymore. You can stir it up in order to speed up the process, or simply allow them to burn down for a full work day. As I calcine in a wood stove that also serves to heat the lab, I simply place all of my calcinations in the wood stove at the beginning of the day and allow them to calcine all day. The next step in the process is done the next morning once the crucibles have cooled down.

Step #2: Grinding

Take the blackened ash out of the crucible and place it into a mortar. Use a pestle to grind the charred plants up into an ash, which effectively reduces the particle size of the plant material and enables it to be further opened up to be oxidized and burned by the Fire once again. This is the purification of the body of the plant with the Earth Element. It can be helpful to wear a respirator or mask during this process, as there is oftentimes a lot of dust kicked up that can sometimes irritate the respiratory tract.

Once you have ground everything up sufficiently, it should look like a black powder. Return this ground ash back into the crucible. In order to get all of the material, the mortar can be brushed with a small paintbrush so you don't lose any ash, as this is precious materials! Also, some practitioners will simply use the pestle to grind the ash directly in the crucible, as each time transferring goes back and forth between mortar and crucible it's common for a small amount of material to be lost.



Step #3: Re-Calcine and Grind

From here on out, your work is to cycle the plant through the burning and grinding stages multiple times over, which gradually opens up and purifies the body of the plant. Different plants calcine at different speeds- some will be finished within 3 or 4 cycles of burning and grinding, whereas others can indeed take quite more time. This is all dependent on the mineral content of the plants. I've calcined some plants daily for 8 hours, for up to 2 months! This is where your patience is required. If your salts are not whitening, it is likely they need a *really* good grinding!



Since the plant material is fully incinerated at this point, it will not produce anymore smoke during calcination. Thus, if using a BBQ, building a fire outside, or using a camp stove isn't efficient for you, spread out the ash in a pyrex baking dish and place it in the oven on high broil, or put your crucible on the stovetop.



There are 3 primary methods of assessing your ash to determine its completion: texture, color, and sound. A pinch of ash rubbed between your fingers should feel smooth and soft, with no grittiness. The color should be a grayish-white color. Some plants will calcine to a pure white ash, others will be more gray or cream colored. Lastly, grinding should be silent. If it's making a crunching sound, it shows there are still larger particulates in the ash that need further purification.



The picture to the right shows salts in various stages of purification- ranging from dark black, to light gray, to pure white.

Step #4: Dissolution

Through calcination and grinding, the Salt is purified with the Fire and Earth Elements. Some spagyric practitioners will add this white ash back into their tincture. I believe further processing is required to ensure the purity and integrity of the mineral salts, both physically and philosophically. This includes cleansing the body with the Water Element.

The next is called dissolution. The process is quite simple, take your pure, white, soft, smooth and “silent” ash and place it into your trusty mason jar. Smooth the ash out so it is even within the jar. The level of ash from the bottom of the jar to the top of the ash is what you will consider to be “1 part.” The ratio here is to add 3 parts water to 1 part ash. This doesn’t have to be a *precise* measurement, simply eyeballing it will do.

It is best to use distilled water, as this is “empty water” which contains no minerals at all and is “hungry” to absorb things into it. It is best to distill your own water- ideally that is collected rainwater (during thunder and lightning is considered best)- and done so on the planetary day and hour of the planet that corresponds to that plant. In this way, you are further concentrating the celestial influence associated with that plant into the water you are purifying the salt with. This is where the true artistry of spagyrics comes in.

So simply add 3 parts of this “philosophically prepared” water to 1 part of your pure ash (middle picture). This will dissolve the water soluble minerals into the water, and allow the insoluble minerals to precipitate or drop out of the solution. As hot water tends to dissolve things better, I usually like to gently heat this water up.



Step #5: Separation

After the dissolved salts have had time to settle- I usually let them sit for about a day, but that is likely longer than necessary- they must then be filtered. Essentially you are separating the pure salts (water soluble) from the impure salts (water insoluble).

This is simply done by placing a coffee filter on an empty mason jar, putting a rubber band around it to hold it in place, and pouring the contents through the filter to separate the solid and liquid materials. I generally will gently wet the coffee filter so I don't lose any material that would go into soaking through the filter.



It's important to allow enough time for all of the liquid in the filter to allow to drip down into the jar. Remember, this is *precious material*, so you don't want to waste any of it by rushing. Once the contents of the filter seems dry, you can take the filter off the jar and *very very gently* squeeze a little bit more fluid out. If you start to see cloudy drips going into the jar, you've squeezed too much. From there you have your filtered, soluble salts there dissolved into the water.



This is seen as separating out the "lesser nature" from the plant's body. To me this process is symbolic of purifying our own bodies, of releasing toxins, waste products, and ultimately removing sickness from the body.

According to alchemy, plants have their own imbalances just like us, and this process is removing those imbalances so they can have a fully healthy body- which is clearly shown in the next step of the process.

Step #6: Evaporation

Now this is where the magic happens! Take your dissolved salts and place it on a *very gentle* heat source to *slowly* evaporate the water off. We do this on top of our kiln, but before that I used everything from seed starter mats to hot pads from the drug store used for sore muscles. If you live in a warm ecosystem, you can place them outside in the sun. Regardless of how you evaporate it down, it's *critical* that you cover it with a clean cloth or a fresh coffee filter, as bugs are for some reason *very* attracted to this highly alkaline solution.

Typically, it will take us a week or so to fully evaporate a 1/2 pint mason jar worth of dissolved salts, so you can see that this is done very slowly. Basically you are materializing the body of the plant. Formation of a body doesn't happen immediately- for us humans it takes about 9 months! So rapidly boiling the water off by putting it on a pot on your stove or in a pyrex dish in a hot oven is way too fast and will yield not the nicest looking mineral salts. The slower you evaporate the water, the slower your salts will grow, which gives them time to form into much more beautiful crystals!

Plant salts can crystallize in a wide variety of shapes, patterns, and forms. I've seen everything from sharp needle-like crystals, to globular masses, the fully terminated crystals (even double terminations!) They range from crystal clear, to white, to slightly yellowish in color- all ultimately depending on the mineral content of the plants.

Below are various examples of crystalline plant salts. I've crystallized over 300 different species of plants over the last decade and it *never* ceases to amaze me how incredible these formations are!!



Examples of Crystallized Mineral Salts:



Step #7: Cohobation

The final step in all spagyric processes is called cohobation, which is when the 3 Philosophical Principles of Sulfur, Mercury and Salt are recombined, or reawakened, to complete the first half of the medicine making process. (Remember, the second half of the process is when the process is reversed- that is, the plant takes *you* through separation, purification, and recombination).

Cohobation differs dependent on what type of spagyric medicine is being prepared. Simple Spagyric Tinctures are cohabated by adding the crystalline salts back into your tincture. But the more complex spagyric preparations have different cohobation processes, sometimes taking months or even years to complete, as the Sulfur and Mercury of the plant is slowly re-imbibed and re-awakened within the body of the plant.

Prior to cohobation, some practitioners will in fact start the entire Salt process over. Taking their crystalline mineral salt, placing it back into a small crucible, and re-calcining, re-grinding, re-dissolving, re-filtering, and re-crystallizing. While in this process you ever so slightly lower your yield, this subsequent crystallization of the mineral salts yields an even more pure salt that more readily dissolves into the Mercury and Sulfur of the plant. It was common in alchemy for these processes to be repeated up to 7 times in order to generate the most pure form of the medicine of the plant.