

WATER OR ALCOHOL?

The first decision we need to make is do whether we want our extraction in an Alcohol Base or a Water Base.

The Alcohol Base will preserve the flavours for longer so there is a real benefit here doing it this way. The Water Base is easier to do but the choice is entirely your own.

Alcohol Base:

We need to do a wash first if this is our preferred route. If you're not sure on how to do a wash we've done many videos on how to make a wash for making vodka, so you'd do well to watch these first.

We need to ferment some sugar in water using a yeast to make the alcohol. It really doesn't matter what type of yeast we use as we are not going to be drinking this. We are just making Alcohol. Please try and make this as a clear liquid so at the end of fermentation it's as well to add some clearing agent like Turbo Clear. This will help to keep your machine clean and help stop blockages forming.

Extraction:

Having made your decision about whether to do an Alcohol or Water base we now have three options on how we going to do the extraction:

1. We can add the Flowers/Plants (Essential Oils) to our base and leave them to soak. This will provide probably the least strength of flavour. We then need to run this through our still.
2. We can add the Flowers/Plants and the base directly into the still. This will flavour the liquid that comes out of the Still with the Flowers creating the Essential Oils. So once you have done the soaking of the flavours then turn the still on and run it.
3. Or we can build a basket and support this above the liquid level. The Flowers will then go inside the basket. The basket should be suspended about the liquid level. This can be done by tying cotton to the basket and then trapping this between the lid of the still and the base. When the vapours from the liquid (either Water or Alcohol) pass through the Flowers/Plants they will pick up the essence. This is our preferred option out of the three methods.

The Airstill and the T500 are designed to heat up to 78 to 82 when Alcohol Vapour will come off the liquid. If using water the Airstill will take quite a time to do the extraction.

To get you started using a Water Base you may want to follow these instructions:

Step 1 – T500 set up

- Set T500 up to run as a pot still (see photo). Run the cooling water through the condenser only, not the column. Don't use any saddles.
- Place clean plant material in the boiler and add enough water to cover. Each plant material will require different volumes of water, as an indication, for 1kg of rosemary leaves, add 15L of water. No boil enhancers or distilling conditioner are required.



Step 2 – Running the still

- Turn on boiler and allow to heat up.
- Turn on tap to let cooling water run through the condenser before the content of the boiler gets too hot.
- Sufficient cooling water flow is needed to condense all the oil – the distillate should be cool to luke warm (approx. 30°C) and the cooling water should come out between 30 and 40°C, although this may vary depending on the plant material used.

Step 3 – Collecting the distillate

- Collect the distillate in fractions (eg 500ml lots or smaller) so you can monitor quality of the output throughout. The quality will drop off at the end and may become more 'cooked'. Stop collecting when the quality drops.
- Collect a maximum distillate of 80% of the volume of water put in the boiler to make sure it does not boil dry and cook the plant material.
- The distillate collected will be mainly hydrosol (water based plant extract) but there will be essential oil with it. The oil will separate out over time and will float on the surface (for nearly all oils, there are a few which are denser than water and will end up on the bottom).
- The oil can then be separated off from the hydrosol by pipette. We recommend to leave the distillate settling into a narrow container, as the layer of oil will be thicker.
- The hydrosol can also often be used (rose water, lavender water etc).
- Yields of oil are low, a yield of 1-2% is considered good.

Note: It's important to remember that when you're done you need to thoroughly clean the machine otherwise these smells will be picked up next time you do the process.