My newest “favorite” Hydrosol: Calendula officinalis

Though I have distilled no less than 30 different flowers, leaves, roots and bark it is always exciting to try something new. My newest adventure has been Calendula flower tops (Calendula officinalis). There are those that argue that it is impossible to make a calendula hydrosol, since the essential oil is not extracted by steam-distillation. I disagree, by using fresh organic flowers and a wet steam distillation, the resulting hydrosol is in the 5.5 range; mild in aroma but tangy in taste and shows great promise for a wound spray and as an addition to healing creams and lotions. I would agree that this is not your typical aromatic hydrosol but valuable nonetheless.

Calendula comes from the Latin *calens*, meaning "the first day of each month." It was so named by the Romans since it bloomed every month in mild climates. It is also associated with the Virgin Mary, hence the common name Pot Marigold. This plant is often confused with the bedding plant marigold, which is of the genus *Tagetes*. Calendula has been written about since before the 12th century. The famous herbalist Hildegard de Bingen wrote of its virtues, stating “it has strong viriditas (greenness)”, which is her word for the principle of life. Pretty high acclaim indeed! It has appeared in Shakespearean plays and been in numerous poems.

According to several studies there are water-soluble flavonoids present in Calendula, and are attributed to its success in wound healing. There is also copious anecdotal evidence showing the healing properties of this beautiful flower. Since the teas have a long history of medicinal use, I theorize that the hydrosol should live up to this plant’s medicinal reputation. More data is needed and I invite any of you distillers to share your thoughts and results with me.

To make my Calendula Hydrosol, I load the still with 24-30 lbs of fresh picked flower tops and 8-10 gallons of water. I can only collect around 3 gallons of quality hydrosol, which gives me a plant/hydrosol ratio of 8-10#/Gal. That is one of the highest ratio’s I distill. It rivals Lemon Balm (Melissa officinalis) for mass of plant material needed to produce a strong hydrosol.

Using water with a PH of 6.5, the hydrosol PH starts off around 5.1 and quickly rises to 5.9. About an hour into the distillation the PH drops and stays in the 5.1-5.7 range. I have noticed a distinct difference in ranges associated with different batches of Calendula. I attribute this to terrior, and time of harvest since the water, weights, protocol and copper still remain a constant.

I have had an HPC (heterotrophic plate count) run to test for microbial activity and it came back at 1.0. To put this number into perspective drinking water is required to have a HPC of 500 or less. I will continue the testing to help establish a shelf life for this hydrosol since its PH is relatively high.

Lovely Calendula Cream

\[
\frac{1}{2} \text{ Cup of Calendula Infused Oil} \\
1 \text{ Cup of Calendula Hydrosol} \\
\frac{1}{2} \text{ oz beeswax} \\
10 \text{ drops Essential oil of your choice—mine is Rose Geranium}
\]

Melt beeswax in the infused oil use a double boiler or the low setting on your oven. Make sure it is melted and thoroughly mixed. Pour hydrosol in clean/sterile blender, the hydrosol must cover the blades.

Wait for the infused oil to cool just enough to start a "skin". If it is too hot it will not mix properly. Start on the low setting of your blender and slowly add the oil to your hydrosol, turning up the speed as it bogs down. When all infused oil is added quickly add the EO. Do not over blend. Put in clean, sterile jars and refrigerate.

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