

# Herbs Make Scents

THE HERB SOCIETY OF AMERICA  
VOLUME XLV, NUMBER 8



SOUTH TEXAS UNIT  
AUGUST 2022

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## August 2022 Calendar

- Aug 4**, Thurs. 6:30 pm      **Westbury Garden Workday** at 12581 Dunlap Street, Houston, TX 77035
- Aug 9**, Tues. 10:00 am      **Day Meeting** is cancelled. Planning and reorganization is taking place in August. Your input is welcome – please send suggestions to **Janice Stuff** at [jestuff@pdq.net](mailto:jestuff@pdq.net)  
Watch for further announcements.
- Aug 11**, Thurs. 7:00 pm      **Full Moon Ramble** (Zoom Gathering for Members Only)
- Aug 17**, Wed. 7:00 pm      **Evening Meeting (Members Only)** “Herb Fair 2022: Embracing Herbal Traditions and Spreading Herbal Knowledge” will be presented by **Catherine O’Brien**, 2022 Herb Fair Chair and, **Julie Fordes**, Unit Chair, at the Cherie Flores Garden Pavilion, 1500 Hermann Dr, Houston, TX 77030
- Aug 18**, Thurs. 6:30 pm      **Westbury Garden Workday** at 12581 Dunlap Street, Houston, TX 77035

## September 2022 Calendar

- Sept 1**, Thurs. 6:30 pm      **Westbury Garden Workday** at 12581 Dunlap Street, Houston, TX 77035
- Sept 10**, Thurs. 7:00 pm      **Full Moon Ramble** (Zoom Gathering for Members Only)
- Sept 13**, Tues. 10:00 am      **Day Meeting** To Be Announced
- Sept 15**, Thurs. 6:30 pm      **Westbury Garden Workday** at 12581 Dunlap Street, Houston, TX 77035
- Sept 28**, Wed. 7:00 pm      **Evening Meeting** To Be Announced  
*(Note the date change)*

**Newsletter deadline: the 25<sup>th</sup> of every month is strictly enforced  
(September Editor is Linda Alderman)**

## Happy Birthday!



Photo by Papaver rhoeas on Unsplash

8/05 -Rose Wherry  
8/12 -Carolyn Kosclskey  
8/19 -Lucinda Kontos

**Herbs for Zodiac  
Leo Sign**  
Sunflower, Lemon Balm,  
Eyebright,  
Tarragon and  
Chamomile

[Horoscope Signs and Corresponding Herbs \(thespruce.com\)](https://thespruce.com)



## Chairman's Corner

Greetings all,

The big news is that we **already** have a wonderful chairperson for Herb Fair. I am pleased to announce that **Catherine O'Brien** will take hold of the tiller for our 2022 event, "*Embracing Herbal Traditions and Spreading Herbal Knowledge*".

In addition to that fantastic news, and already having an excellent location for the event, we have dedicated our *entire* **August Evening Meeting** to planning for the fair. We can brainstorm new ideas and generate excitement about sharing herbal knowledge. The August 17 meeting at Cherie Flores will be a "Members Only" meeting. We will let our new members in on what fun we have every year preparing and attending the fair with a PowerPoint presentation. After hearing about all the different committees, members will all be able to volunteer for the committee(s) of their choice on the spot!!! We plan on having thank-you gifts and door prizes at the event. All members are welcome. Hostesses will supply herbal beverages, but please bring some finger food or herbal bites (sweet or savory) to share. Please bring your own plate, cup and silverware as usual. Stay tuned for more details between now and the August meeting. Way to go Catherine!

Thank you, **Susan Wood**, for your article about **Angela Roth** and the garden at Pin Oak Middle School in last month's newsletter. The STU Board has now designated the Pin Oak Middle School garden, as well as the Westbury Community Garden, as places we officially support. One thing this means is that you may accrue volunteer hours by working in either one of these gardens. Angela will let us know what days we can be of help in the near future!

Did you know that if you **pay your dues before August 20** you will have earned a place in herbal heaven and the undying gratitude of the entire STU Board and most especially, the Treasurer!!! Your prompt payment will allow us to get our forms to National in time and get on with the fun of planning our fall programs and events.

Julie



## Here's How to Pay Your Dues Online!



1. Click on this link ([herbsociety-stu.org](http://herbsociety-stu.org))
2. See the lime green box "What's New"
3. Click on the last bullet "Pay Annual Dues or..."
4. Click on the photo that looks like the one to the right

Or mail to HSA-STU P.O. Box 6515 Houston, TX 77265-6515



**Announcing Our August  
HSA-STU Evening Meeting  
"Herb Fair 2022: Embracing Herbal Traditions  
And Spreading Herbal Knowledge"**

**Presented by:  
Catherine O'Brien, 2022 Herb Fair Chair  
and Julie Fordes, Unit Chair HSA-STU**



Photos courtesy of Karen Cottingham

**It may be sizzling hot right now, but in a couple of months, your garden can look like this! All the plants pictured here thrive in Houston's fall weather and are greatly appreciated by the wildlife!**

**Come congratulate Catherine as this year's Chair, and help make Herb Fair 2022 the Greatest of All Time!**



**WESTBURY COMMUNITY GARDEN  
Herb Society Summer Schedule**



We are meeting on Thursday evenings @ 6:30 for the next couple of months. This is in addition to regular watering and harvesting.

**AUGUST 4      &      AUGUST 18**

**ARE THE DATES FOR THE NEXT TWO MONTHS**

In addition to your tools etc. bring a mug for tea. I'll bring hot water. Snacks will not be turned away.

Julie



## Back to Our Roots

Julie Fordes

The heat has been too much for some plants...we put lots of mulch down to help with water retention and I think that has helped. Thank you to all of our members who have watered the garden and attended workdays.

The holy basil is coming up everywhere and we have just about doubled the amount of butterfly pea we are growing. I harvested all of those beautiful flowers yesterday and today it looks like I never touched it. We certainly can harvest holy basil and blue pea every other day. If you have time to go down and harvest, let me know. We always demonstrate the harvesting techniques and discuss drying and storing these plants at our workdays.

We have rehomed the lemongrass to Plant it Forward. This means we are depending on our members to harvest lemongrass from their home gardens for this "Pink and Lemony" tea ingredient. This also means we have the possibility to grow other medicinal herbs. Yarrow has been suggested. I wonder if we could grow some of the herbs mentioned by Faith Mitchell at our Zoom meeting on Gullah-Geechee medicine. I remember High John the Conquerer and Life Everlasting. If you have any suggestions for herbs that would benefit us and the Westbury Gardeners, let me know.

### Tea Blends

Keep growing, drying and storing the herbs from your garden!  
Only grow one or two herbs, no problem, any excess you are able to share will go toward the South Texas Unit's fundraising efforts.

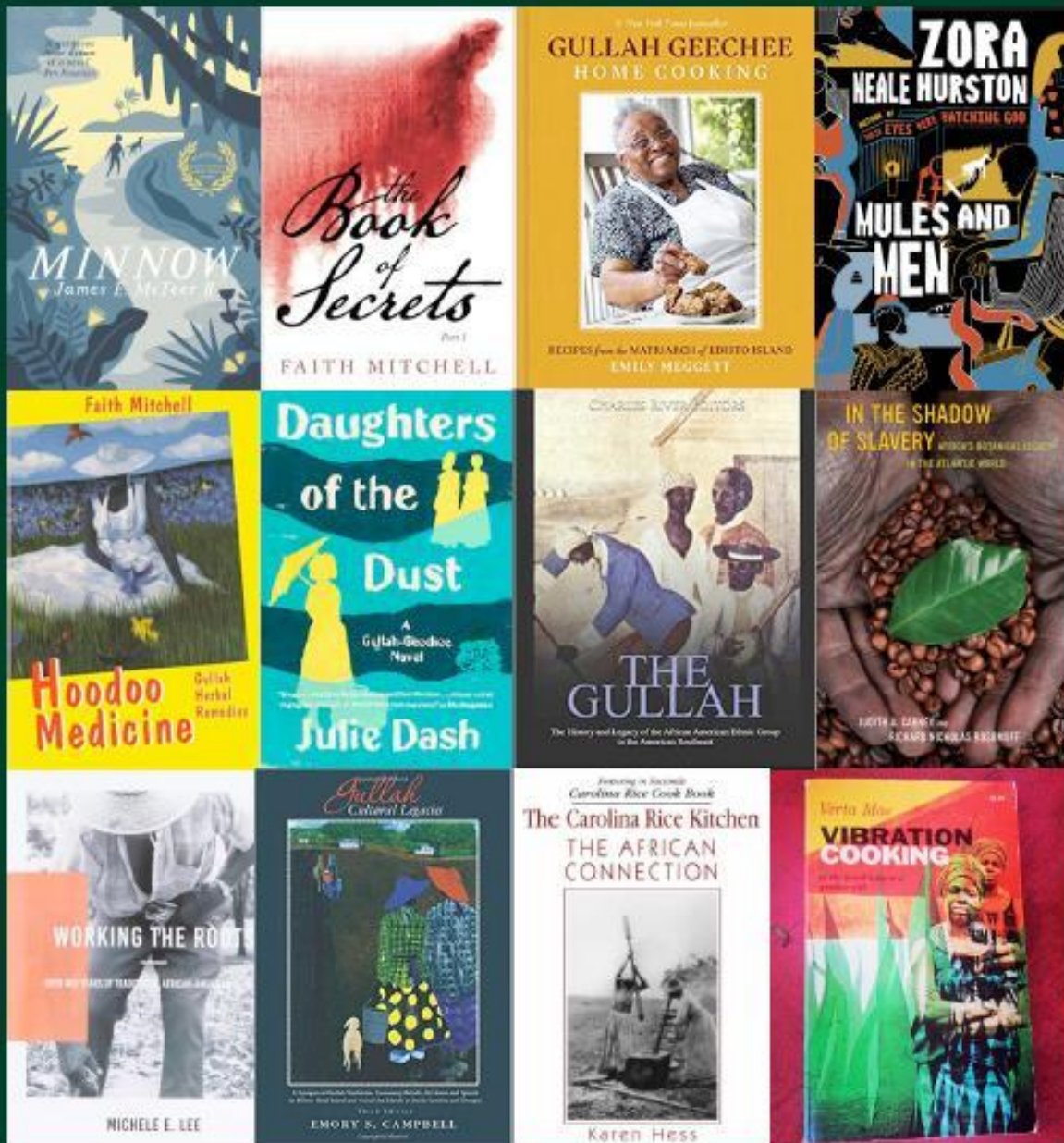
Listed below are herbs to grow and dry. Visit our website to learn about [Harvesting, Drying and Storing Herbs](#). As the fall season nears, watch the newsletter for further instructions.

Comfrey	Mexican Mint Marigold	Roselle
Calendula Flowers	Oregano	Sage
Chamomile Flowers	Passionflower	Spearmint
Lemongrass	Peppermint	Stevia
Lemon Balm	Red-Stemmed Apple Mint	Thyme
Lemon Verbena	Rose Petals	

**Everyone can participate!**



Want to learn more about Gullah-Geechee history and healing, culture and cuisine?



Here are a few suggestions!

We hope you enjoyed Faith Mitchell's excellent program



## **AUGUST 1 IS THE BEGINNING OF THE NEW MEMBERSHIP YEAR AND IT'S TIME TO PAY YOUR DUES**

Carolyn Kosclskey, Membership Chair

The new membership year begins on August 1<sup>st</sup> and it's that time of year to pay your dues. Most of our membership chooses to pay on the website using Square, although it's perfectly okay to mail a check to treasurer **Maria Treviño**. If you are an *active* member, which includes most of us, you will be paying \$67.50. Other membership levels include *sustaining single* (\$80) and *affiliate* (\$12.50). Additional information on membership fees is listed on page 23 of the latest Directory (lavender).

There have been several questions from members asking how you can confirm that your dues have been paid and received. For members paying online using Square, a confirmation email will be generated. If you don't see this in your in-box check your other folders as well. If you choose to pay by personal check, you will need to look at your banking statement online.

For any recent new members who joined and paid membership fees online prior to July 31st your fee should have been prorated and it's time to pay for the coming year. For any new members who joined and paid membership fees August 1 and later, you're good for the remainder of the year. Welcome new members!

## **THERE'S STILL A LITTLE TIME TO SUBMIT YOUR VOLUNTEER HOURS**

Last count of hours submitted as of July 29<sup>rd</sup> was **6,100 + hours!!!** That's tremendous but unfortunately for our unit does not include everyone's hours. HSA requires recording volunteer hours for the membership year and submitting them to the main organization in August. No need to itemize them, just send your total volunteer hours to [stxu.membership@gmail.com](mailto:stxu.membership@gmail.com) If you have already submitted hours for the membership year July 1, 2021 through June 30, 2022 and an update is needed, email me at the link above—there's still a little time to squeeze that *increase* in.

Carolyn

## Welcome to our New Members!





## MEMBER SPOTLIGHT

By Carolyn Kosclskey

### A CONVERSATION WITH MARY NURRE

**Mary Nurre** joined STU November 2021 and brought a wealth of gardening knowledge with her as a member. She and I chatted recently and I was interested in knowing how someone without a yard stays involved in gardening!

**Carolyn** - Thinking back I remember when you applied for membership last November and how impressive the photographs were that you later sent taken at the Trotter Family YMCA on Augusta of the garden plots as well as what you'd harvested and were offering to other members. Tell me how you became a Houston gardener and herb gardener.

**Mary** - My life as a gardener did not happen until my adult years. I grew up in Cincinnati in a very large German/Irish family with 12 children. With a large family meal time was a major event. As the middle child I did a lot of the cooking for our family and most of what was served came out of a can or a box. That was before the Sam's and Costco's where today you can buy mega sizes of canned goods. Back then whatever you served like beans or corn would take five 16-oz. cans. My early gardening experiences were limited to watering plants in the yard like roses and shrubs. My grandparents lived nearby and had a large garden, and I can remember my grandfather telling me the importance of watering at the base of the tomato plants and not getting water on the leaves.

**Carolyn** - After completing high school and then college, where did you live before moving to Houston?

**Mary** - In a large family everyone has to contribute, and all through high school and during my 4 years at Xavier University I worked to pay 100% of my tuition! After getting married I ended up living in Raleigh, NC in a traditional residential neighborhood where in our large yard I spent many hours every year raking and bagging pine straw from our over 100 pine trees. In the early eighties while working for Cort Furniture Rental, I transferred to a job in Houston. This was my first introduction to the type of plants that flourish in zone 9, quite different than plants that grow in Cincinnati's zone 6 and Raleigh's zones 7 and 8. My first home in Houston was near a bayou and I was really impressed with the type of lush plants that flourish in that environment.

**Carolyn** - You mentioned that not that long ago you moved from a home to a high rise—how challenging is it to stay involved in gardening without a yard, especially herb gardening?

**Mary** - As you mentioned I am involved with the Trotter Y's huge garden and have been one of their most active volunteers from the day I joined. In the past I've been a Texas Master Gardener and completed continuing education at Texas A&M. I'm also a member of Edible Houston, a past member of the Piney Point Garden Club and was Texas Backyard Habitat certified. I'm a huge volunteer for anything Bayou Preservation!

**Carolyn** - Tell me how you first became acquainted with the South Texas Unit.





**Mary** - Another garden where I volunteer is The Betty and Jacob Friedman Holistic Garden at Rice University working with director **Dr. Joseph Novak**, and **Dr. Joe** had mentioned the South Texas Unit to me on several occasions. One day during that November I joined I ran into **Karen Cottingham** who was collecting plant material [for Herb Fair] and I asked her what she was doing. After speaking with Karen and learning about the variety of activities offered by STU, I decided I would be interested in joining.

**Carolyn** - All of what you've told me is so interesting and I'm sure some of our members who volunteer at the Westbury garden have met you there. From our conversation you told me you like to cook with what you have and freeze a lot of what you harvest for future meals. As a home cook who knows your way around the kitchen what is your "go to" herb?

**Mary** - That's an easy one—sorrel! Sorrel is both a flavoring herb when used in a small amount added to a dish, or can be made into a main vegetable dish or soup. It's also high in essential nutrients like fiber, magnesium, and vitamins C and A. What's not to like about sorrel.

## GOT USED BOOKS THAT ARE GARDEN OR HERB RELATED? HERE'S HOW TO DONATE THEM TO THE HERB FAIR

New member **Laura Boston** has offered to organize a Used Book Sale for Herb Fair

Contact email is [lboston@hotmail.com](mailto:lboston@hotmail.com)

See lavender Directory for  
contact phone/address



### How to donate the books:

- Bring books to STU Evening Meetings on Aug 17, Sept 28 or Oct 19 *OR*
- Bring books to Laura's house.

### Books that qualify:

#### Non-Fiction:

Gardening books, cookbooks, food preservation, plant propagation, garden care, environmental, climate change related, you get the idea.

#### Children's Books:

Any kind of children's books. It would be nice if they were garden, plant or outdoor related.

#### Fiction:

Books that have a theme of gardening, nature, outdoors or generally of interest to plant people.

#### Suggestions:

\$2.00 Hardback books

\$1.00 Paperback books

Half price one hour before closing. If we get really special books, those will be individually marked.



## Pin Oak Middle School Garden

Great news! Pin Oak Middle School Garden (POMSG) has been added as an approved garden for STU members to report their volunteer hours to The Herb Society of America. **Angela Roth** has set up the 4<sup>th</sup> Saturday of every month from 8-10 a.m. as a recurring garden workday. In November and December that day will change to the 2<sup>nd</sup> Saturday of month at same time. Read on for Angela's description of this wonderful garden, conveniently located at 4601 Glenmont which is ½ block off Loop 610 West in Bellaire, TX 77401, just south of the Home Depot and east of Houston Community College.



If Saturday mornings don't work for you, please contact Angela to let her know when you (and a couple of friends) would like to volunteer. That way she can give you a heads up of what needs to be done. -- **Susan Wood**

Welcome to a school garden of great diversity!! Pin Oak Middle School has something for everyone! We even have two wheelchair accessible beds among our herbs! Our students have built a Monarch Shaped Bed for Monarch Butterflies. We over have over 35 roses of many shapes and colors from The Antique Rose Emporium (including Belinda's Dream and The Green Rose!).

Some of our parking lot islands are soon to be Entirely Natives and others will be a combination of Natives & Texas Toughs!! We have blue java and red banana palms as well as a Native Paw Paw tree and a persimmon. We have Meyer Lemons, Honey Figs, Peaches, Dorsett Apples, a Mexican Plum and even a Black Spanish Grapevine that is being supported by a repurposed arbor from a wedding ceremony!

The final garden is our Hummingbird Highway. This is a favorite area due to its proximity to our hens, our mulberries and our pomegranate trees. We also have most of our composting efforts close by. Worm composting fascinates and grosses out children and adults in equal measure!

We will have a standing workday on the fourth Saturday of each month, except November and December. Those will be the second Saturday. We will keep it short, 8-10am. This will allow students to earn service hours and everyone else to fulfill their need to make the world a better place!!

If you have questions, please contact Angela at [angelarothnews@gmail.com](mailto:angelarothnews@gmail.com)

-- Angela Roth





## AT-HOME RECIPES

### AT-HOME RECIPES

August 2022

By Carolyn Kosclskey



*We're in a full-blown drought now. Harris, Grimes, Walker, Waller and San Jacinto counties are in "Severe Drought." Liberty County is about divided evenly between "Moderate and Severe Drought." About 3/4 of Montgomery County is in "Moderate Drought," while the far western part of the county is in "Severe Drought." I suggest that you get a hose-end sprinkler and do extra irrigating during the early morning and late afternoon. Do not run your in-ground sprinkler systems during the day. You'll be doing more harm than good.*

**Bob Dailey**, The Woodlands Water Agency, July 25, 2022

If it's hot where you are you're not alone! We're in the "dog days of summer," which has nothing to do with canines and everything to do with the nighttime skies above. The days between July 3 and August 11 are some of the hottest in the Northern Hemisphere, the term dating back to the ancient Greeks and Romans in reference to the star Sirius, or Dog Star, that rose just before the sun in late July signaling the onset of the hottest weather of the year. In ancient Egypt 5,000 years earlier the rising of Sirius just before the sun marked the return of the annual overflowing of the Nile River irrigating and fertilizing the surrounding lands.

Our crops in this area thrive in the long days and heat of summer, albeit with more frequent watering than before. Much of what is producing in our gardens now and what you see in local markets are warm weather herbs (especially basil), corn, cucumbers, eggplants, okra, peppers of all types, squash, blueberries, cherries, peaches and plums. This is a great time for "eating a rainbow" with fresh vegetables and fruits at every meal, and also a great time to preserve our harvest for after the growing season.

For August we have three delicious and nutritious hot weather recipes from our members, only one of which requires minimal stovetop cooking.

### GLORIA'S AWARD WINNING SALSA

*From the files of **Gloria Hunter**, South Texas Unit Affiliate Member,  
Texas Thyme Unit (Huntsville) Unit Chair*

*This is a salsa recipe I learned from my mom and have made it many times over the years. In November 2012 my husband John asked if I was interested in entering the salsa competition in Terlingua where an annual chili cook off has been held since 1967. So off we went and took everything we needed so we could make it fresh in our motel room. Not knowing how much to make, we made a small pail of it but they only required a Solo cup amount. There were two tickets attached, one we took and the other stayed attached to the cup. We went hiking and returned later that afternoon, and when I asked about the contest was told that the salsa had already been judged. The next competition was for margaritas, and then they said they were doing the salsa again. Sure enough they called our number. I told my husband we won, that is our ticket number! He'd left the camera in the car so told me to walk very slowly to the stage while he retrieved it. What an awesome surprise. My award was a brick that was engraved with "1st Place Salsa Competition." A gentleman came up to me and said he wanted to shake my hand and congratulate me since he had won the*



year before. We compared recipes and found out it was identical except he used Serranos and I use jalapenos. I do add a Serrano when I want it to be really hot. Since we had made so much we shared it that evening with everyone at the competition.

After I came back I told the story to the Texas Thyme Unit and let my fellow members know I had won the competition, so we added it to our cookbook, *Thyme to Cook*, as “award winning salsa recipe.” It has been a fun recipe and I have even done demos making it during our plant sales.

½ onion, chopped  
2-3 garlic cloves  
1-2 jalapenos or to taste, cut up if large  
1 tight handful of cilantro  
1 large can of whole peeled tomato  
½ teaspoon salt  
½ teaspoon pepper  
1 teaspoon cumin powder

Mix all ingredients in a food processor. Taste and adjust, add more peppers if needed.

### WHAT IS PESTO?

When most people think of pesto basil comes to mind as the main ingredient. Merriam-Webster defines pesto as a sauce made especially of fresh basil, garlic, oil, pine nuts, and grated cheese. The name Pesto originates from the Genovese word pesto, which means to pound or to crush. This refers to the way in which the authentic sauce is prepared, with a mortar and pestle. True pesto is made from fresh basil, garlic, olive oil, pine nuts, and cheese pounded together into a thick, green paste. So what is the difference between sauce and pesto? Simple: the tomatoes. Does pesto have to be made using basil? Not especially.

### ARUGULA ZUCCHINI PESTO

At the “Y” gardens we grow a lot of arugula, two kinds. We don’t grow zucchini, but I am growing loofah which when young is more tender and milder than zucchini. I will make this recipe again when those produce in early fall.

From the recipes of **Mary Nurre**

#### Ingredients

1 5-oz. container Arugula (approximately 5 cups or 142g)  
1 large zucchini, washed and diced 1” (2 cups or 200g)  
1 clove garlic (6 g)  
½ teaspoon fine sea salt  
1 teaspoon Pierre Poivre blend\*  
½ cup olive oil (100)  
½ cup grated parmesan (70g)  
1 lemon, zested  
\* a finely ground eight-pepper blend with tangy, sweet, sour, and floral notes



## Directions

Prepare a medium-sized pan of boiling salted water and an ice bath to blanch and shock the arugula. When ready, submerge all of the arugula in the boiling water, stirring to make sure all of the arugula has been boiled for a full second. Remove the arugula to the ice bath and stir while in the ice water to shock the arugula quickly. Remove the cold arugula, drain, and squeeze out excess water.

Roughly chop the arugula and set aside. When the water has come back up to boil, add the zucchini and cook for 1 minute. Strain out the zucchini and let the pieces cool in a single layer on a tray or plate until cooled to room temperature.

Place the arugula, cooled zucchini, garlic, salt, Pierre Poivre, and olive oil into a blender and blend until smooth. Remove the pesto to a bowl and stir in the grated parmesan and lemon zest, adjusting with more salt and Pierre if needed.

Transfer the pesto to a clean container and store chilled.

If you don't have fresh zucchini, frozen zucchini can be easily substituted.

When blending the pesto, the puree should be smooth but not warmed from working in the blender.

You can chill the pesto in a bowl set in a bowl of ice water to chill the pesto quickly if needed.

The recipe works very well with basil in place of arugula.

[www.laboiteny.com/](http://www.laboiteny.com/)

## **CARROT TOP PESTO**

½ cup raw walnuts, cashews, almonds, pine nuts or sunflower seeds

1 clove garlic chopped

2 tablespoons freshly-squeezed lemon juice (about 1/2 of a lemon)

1 teaspoon fresh lemon zest (about 1/2 of a lemon)

Carrot tops from 1 large or 2 smaller bunches of carrots (yields 1 cup blanched)

¼ cup fresh mint leaves

3 green onions, fresh green parts only

4 tablespoons Extra Virgin Olive Oil or more to taste/need

Salt and pepper to taste

Chop nuts in the food processor first, and then add all the rest, to the consistency that you like. A quick blanch and then a quick ice bath for the greens keep their green color better, but not necessary for the end taste. I have made this also with 1/2 beet or radish tops plus 1/2 spinach or basil (no mint). You can go nut-free by using chickpeas or white beans in place of nuts or seeds. You can toast the nuts lightly also for more flavor. You can add some spice to change the profile, like cumin, chili flakes, turmeric or oregano. I double this as it takes no longer to make and freeze in small containers for later or to give away!

*From the recipes of Mary Nurre*



## ROSELLE RED THAI TEA

A refreshing beverage for hot summer days

### Ingredients

1/3 cup or small handful dried Roselle (hibiscus) calyxes (available in produce at some HEBs and Kroger's)

1/4 cup cinnamon imperials "red hot" candies (recommend Ferrara Pan brand (Amazon) for true "back in the day" hot cinnamon flavor)

1 teabag Celestial Seasonings Herbal Tea Bengal Spice

4 family size tea bags (or 1 gallon size), decaf or regular

1/2 packet Crystal Light Green Tea Mango Peach drink mix

For added flavor add when brewing lemon or orange zest, cloves, a cinnamon stick, peppermint candies or Lemon Heads candies. If adding rosemary stem swish briefly in hot water, or add later when water is less hot, to avoid botanical taste.

### Directions

After adding boiling water to Roselle and cinnamon red hots, stir to dissolve candies before adding tea bags. Stir tea bags gently to submerge without breaking bags and steep per instructions. Using a fine mesh strainer pour contents into another gallon container. Remove contents from strainer and save for compost, rinse strainer and re-strain tea back into original container.

Stir in half packet Mango Peach drink mix until dissolved, and fill container with cold water while stirring. Fill glass with mint, basil leaves and a thin lemon slice, add ice, then add tea. Makes a pretty and refreshing ruby-red peach-flavored tea.

*From the recipe files of **Carolyn Kosclskey***

**HOW  
DRY  
IS IT?**



**Well, it is so dry the cows in the Southwest  
are only producing evaporated milk.**



## KEEPING CALM WITH LEMON BALM (*Melissa officinalis*)

Karen Cottingham



According to English botanist and barber-surgeon John Gerard (1545 -1612), lemon balm “comforteth the hart and driveth away all sadnesse.”.

Has this crazy world got you down? Feeling anxious, unsettled, or overwhelmed? Thankfully, there’s a fragrant and uplifting herb that’s been soothing frazzled nerves and sagging spirits for centuries - and it might even be growing in your own herb garden. It’s *Melissa officinalis* - also known as lemon balm, honey balm, “bee queen”, “heart’s delight” and the “gladdening herb”. The common names of this treasured herb refer to its uplifting lemony fragrance, its attractiveness to bees, and its ability to bring joy and peace to our troubled hearts.

Just pick a leaf or two, and gently rub - you’ll be rewarded by a rush of sweet lemony fragrance that will lift your spirits in an instant.

*Melissa officinalis*, a perennial herb in the mint family (Lamiaceae), originated in the scrublands of south-central Europe, the Mediterranean Basin, and western and central Asia. By the 14th century lemon balm had naturalized throughout Europe, and in the early 1600’s colonists brought its seeds to the New World for their medicinal herb gardens.

In ancient times, lemon balm was valued because of the swarms of honeybees swirling about its fragrant flowers. Bees not only provided honey for sustenance, but, more importantly, were worshipped as sacred beings. These industrious insects were thought to be divine messengers traveling between the spiritual and the natural worlds, flying emissaries bearing wisdom, prophecies and divine truths.

Honeybees were so important to daily life, religion and mythology that almost all deities were associated with bees in some way. *Zeus* himself was said to have been raised on wild honey and goat’s milk. (Note: Children under 1 year of age shouldn’t be given any type of honey due to the risk of botulism.) The



Minoan Earth Mother *Potnia* was known as "The Pure Mother Bee", and *Aphrodite*, the goddess of love, beauty, and procreation, was called "Melissa, the Queen Bee". Even the Delphic Oracle was called "The Delphic Bee", and the complex at Delphi was said to be based on a beehive.

Goddesses were sometimes even depicted as half-human, half-bee chimeras:



Gold plaque embossed with a bee goddess, found at Camiros, Rhodes, and dated to the 7th century BCE (British Museum), left, and right, a 15th century BCE gold signet ring found in a tomb at Isopata, in the vicinity of Knossos.

In the examples above, the Sphinx-like bee goddess on the gold plaque has a human head and the body of a bee. The bezel on the right depicts bee-headed female figures engaged in an ecstatic religious dance.

*Melissa*, one of the Greek nymphs of mythology, directed the soul of each newborn baby - in the form of a honeybee - to join its body. She also discovered honey and taught humans how to mix honey with water for a nourishing (and sometimes intoxicating!) beverage. This divine gift of honey was said to have civilized humanity, and in gratitude, the honeybee, or *mélissa* in Greek, was named in *Melissa's* honor.

The Latin name of lemon balm, *Melissa officinalis*, also comes from the ancient association of the plant with bees.

Priestesses of other important goddesses were also called "*Melissae*" and were believed to be human embodiments of these divine insects. Only those who had lived a righteous life were chosen as *Melissae*, and after death, they returned to heaven, just as bees returned to the hive.

Bee-worshipping priests and priestesses naturally took note of the favorite nectar source of their sacred bees. Having observed that honeybees were consistently attracted to flowering lemon balm, the beekeepers at the Temple of Artemis at Ephesus started planting this otherwise ordinary weed around the temple beehives. This "bee-friendly" plants not only supplied the bees with all the nectar they needed to produce the sacred honey, but they ensured that the "divine messengers" returned to the hive every night. Eventually, what was once a nondescript wild weed achieved a sacred status as a carefully tended temple plant.





Once lemon balm was appreciated, cultivated, and readily accessible, its medicinal properties and other uses soon became apparent. Over the ensuing centuries, *Melissa officinalis* was used to treat so many health conditions that it became known as “cure-all”. It is best known, however, for its relaxing effects, and is still used to relieve anxiety and insomnia.

The use of lemon balm to soothe emotional distress has been remarkably persistent across time and place. From Greek and Roman antiquity to the monasteries and convents of medieval Europe, and from the emerging scientific world of Renaissance England to the laboratories of contemporary research chemists, *M. officinalis* has been recognized as a valuable remedy for those suffering from stress.

Lemon balm’s beneficial properties were first recorded as early as 300 BCE in **Theophrastus’s** *Historia Plantarum*. The Greek physician **Dioscorides** also wrote of lemon balm’s ability to “sweeten the spirit” in *De Materia Medica* (50-80 BCE).

**Avicenna**, the brilliant eleventh century Persian physician (980-1037), claimed that “balm makes the heart merry and joyful, and strengthens the vital spirits”.



Both Avicenna and Hildegard von Bingen believed that lemon balm made the heart joyful.

A century later, **Saint Hildegard von Bingen** (1098-1179) wrote that “lemon balm contains within it the virtues of a dozen other plants”. She recommended a tea of lemon balm and fennel fronds, saying that “Lemon balm reduces the effects of harmful humours and prevents them from gaining the upper hand”.

Knowledge of lemon balm’s virtues came to Hildegard in one of her extraordinary visions. She saw that this plant had seven different ‘faces’ or personalities, with the center of them at the heart. Perhaps this visionary experience led to her conclusion that lemon balm “makes the heart joyful”.

The 16th-century Swiss alchemist and physician **Paracelsus** (1493-1541) was so confident in the medicinal properties of lemon balm that he prescribed it for “all complaints supposed to proceed from a



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disordered state of the nervous system". His potent "elixir of life", famously said to revive patients close to death, prevent senility, and cure impotence, depended on lemon balm for its miraculous healing effects.

Based on its reputation of strengthening the heart and lifting the spirits, lemon balm was an important ingredient in the medieval cordials generally known as "elixirs of youth". Convents and monasteries were the "medical centers" of the time, and most had their own closely guarded secret recipes for healing elixirs.

Herbal remedies made by people of faith dedicated to prayer and service to God were thought to be especially effective. The most famous of these elixirs was Carmelite Water, first prepared about 1380 by the nuns of the Carmelite Abbey of Saint Juste. The original formula is still shrouded in mystery, having been passed down in secrecy from nun to nun, but was most likely a combination of lemon balm, angelica, nutmeg, and lemon peel infused into wine or brandy.

Over time, the ingredient list for this elixir expanded to also include orange flower water, Lily of the Valley, thyme, rosemary, marjoram, sage, mugwort, lavender, Roman chamomile, elecampane, savory, fennel, sandalwood, great yellow gentian, galangal, bitter orange, green anise, ginger, pepper, cinnamon, coriander, and/or clove. The one constant, though, was lemon balm; with its reputation for calming a nervous disposition, the heart-shaped lemony leaf was always the featured ingredient.



For a gloomy mood or a broken heart that needs soothing, Carmelite water can still be purchased, or better yet, made at home. On the left is the product of a recipe found at <https://picnicinakeldama.wordpress.com/2016/07/20/carmelite-water-a-herbal-tonic-for-mind-body-and-soul/>. Mountain Rose Herbs also offers a recipe as well as all the ingredients needed at <https://blog.mountainroseherbs.com/herbal-carmelite-water-recipe>. The image on the right is from the *Tacuinum Sanitatis*, a series of lavishly illustrated manuscripts first commissioned by Northern Italian nobility during the last decades of the 14th century and continuing during the course of the 15th century.

The marvelous reputations of lemon balm and Carmelite Water spread throughout Europe during the Renaissance, and the healing herb and its elixir were particularly admired by the great English herbalists.

**John Gerard** (c.1545-1612), the English botanist, herbalist, and barber-surgeon, is famous for having written a massive (1,484-page!) *Herball, or Generall Historie of Plantes* which was published in 1597.

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Gerard's assessment of lemon balm echoes his herbal predecessors - "...drunk in wine, it (lemon balm) is good against the bitings of venomous beast, comforts the heart, and drives away melancholy..."

Another admirer of Carmelite Water was **Nicholas Culpeper** (1616-1654), the English botanist, herbalist, physician, and astrologer. In his 1563 book, *The English Physitian* (later re-titled *The Complete Herbal*) he wrote that Carmelite Water "causeth the Mind and Heart to becom merry ... and driveth away all troublesome cares and thought..."

Culpeper also added that lemon balm could be used to "...open obstructions of the Brain; and hath so much purging quality in it...as to expel those melancolly vapors from the Spirits".

A similar assessment comes from the English author, architect, and landscape gardener **John Evelyn** (1620-1706), who described lemon balm as "sovereign for the brain, strengthening the memory, and powerfully chasing away melancholy".

Specially designed herbal elixirs were available for every ailment imaginable, including infections. Starting in the 14th century, deadly waves of plague spread all over Europe, and eventually reached London as the Great Plague of 1665-1666. Desperate to control these mysterious and devastating outbreaks, physicians, herbalists, apothecaries, and interestingly, housewives, devised their own complex versions of medicinal "Plague Waters".



Herbal "Plague Waters", prescribed during the Great Plague of London, often included lemon balm. You can see "balm" listed in the recipe in the center.

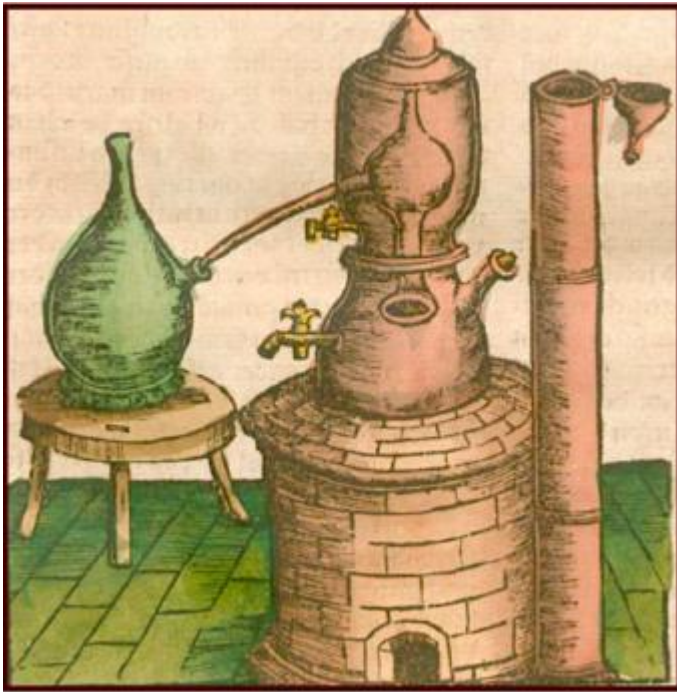
The 1677 Plague Water recipe in the above image is from *The Closet Of the Eminently Learned Sir Kenelme Digby*. For those interested, here are the complete instructions for what is essentially a cordial:

Take a pound of Rue, of Rosemary, Sage, Sorrel, Celandine, Mugwort, of the tops of red Brambles, of Pimpernel, Wild-dragons, Arimony, Balm, Angelica, of each a pound. Put these Compounds in a pot, fill it with White-wine above the herbs, so let it stand four days. Then still it for your use in a Limbeck.



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“Limbeck” is a variation of the Arabic word “alembic”, a device consisting of two vessels connected by a tube which is used for the distillation of liquids. The distilling apparatus pictured to the left is from 1512, from *Liber de arte distillandi simplicia et composita* (Little Book of Distillation), written by the German physician, surgeon, chemist, and pharmacologist **Hieronymus Brunschwig** (1450 - 1512).

Below, this woodcut engraving from the mid-16th century depicts the process of distilling essential oils from plants with a conical condenser. (Wellcome Library, London)

Housewives responsible for providing medicines for their families, as well as apothecaries and alchemists, would have mastered the art of distillation.



“*Agua epidemica*” was another Plague Water prescribed for infectious diseases. This remedy also included lemon balm, along with masterwort, angelica, peony, butterbur, viper-grass, Virginia snakeroot, rue, and rosemary, all having been infused in spirit of wine and then distilled.

*The Compleat Housewife, or, Accomplish'd Gentlewoman's Companion* is **Eliza Smith's** massive 1727 cookery book. As housekeeper for “fashionable and noble Families” in England, Mrs. Smith developed her own version of Plague Water. Twenty-one herbs are required in addition to the lemon balm:

Take rosa folis, agrimony, betony, scabious, century tops, scordium, balm, rue, wormwood, mugwort, celandine, rosemary, marigold leaves, brown sage, burnet, carduus, and dragons, of each a large handful; and angelica-roots, piony-roots, “tormentil-roots”, “elecampane-roots”

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and licorice, of each one ounce; cut the herbs, and slice the roots, and put them all in an earthen pot, and put to them a gallon of white wine and a quart of brandy, and let them steep two days close cover'd; then distill it in an ordinary still with a gentle fire; you may sweeten it, but not much...

You have to admire a housewife, "Accomplish'd Gentlewoman" or not, who had the skills to put this recipe together! And by the way, the "dragons" in these Plague Water recipes were probably wild tarragon. To the medieval eye, the roots of tarragon resembled the tail of a dragon, thus giving rise to its common name "little dragon" as well as its official name *Artemesia dracunculus*.

Continuing with the virtues of lemon balm, the author of the *Pharmacopoeia Londinensis or, The new London dispensatory* of 1696, assured its readers that "an essence of Balm, given in Canary wine, every morning will renew youth, strengthen the brain, relieve languishing nature, and prevent baldness."

The claim that lemon balm prevented baldness may have been a bit of an exaggeration. But then again, an herb that was commonly believed to prevent plague, "revive patients close to death" and "expel those melancolly vapors from the Spirits" could probably handle a little problem like baldness!

Rub a leaf and try to describe the fragrance - intensely lemony, for sure; but what other fragrances can you detect? A hint of rose, perhaps? That would be due to the geraniol, an essential oil that lemon balm shares with geranium leaves. There might be a scent that's reminiscent of the smell of grass, what you might call "green" or "clean". Maybe the leaf's fragrance seems sweet to you, or perhaps woody and spicy, even "sharp" or "tangy". You may even detect an aroma that reminds you of lavender - this would be due to its high levels of the essential oil linolool.

Perfume experts can detect all of these scents, and many more, in the leaves and flowers of lemon balm.



Over 100 chemicals have been identified in the leaves of *M. officinalis*. How many different odors can you identify?

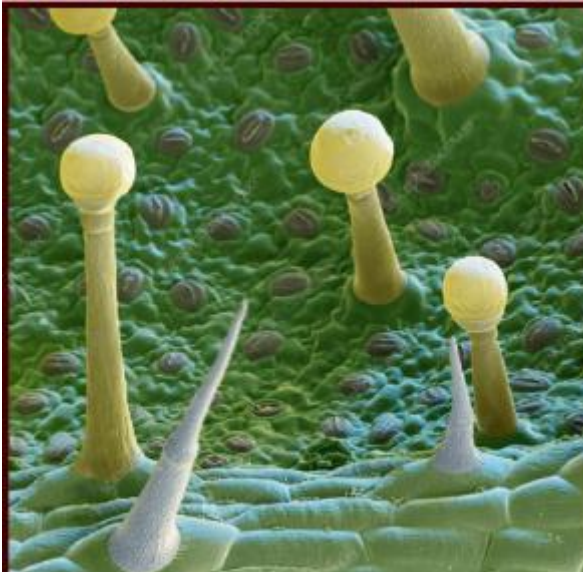
Each individual has a slightly different sensory experience of lemon balm, and uses different words to describe it. But just about everyone experiences the fragrance of lemon balm as energizing, uplifting, and overwhelmingly pleasant. It's one of the most delightful and refreshing fragrances ever created by nature.

What actually happens when we gently rub a lemon balm leaf? With just the lightest touch, the powerfully aromatic chemicals burst out of their bubble-like storage units and vaporize into the air that we inhale.

The aromatic essential oils of lemon balm are produced and stored in spherical structures called glandular trichomes. Other members of the mint family, such as rosemary, thyme, oregano, marjoram, basil, savory,



lavender, sage, mint, and shiso, each synthesize their signature essential oils in similar appearing glandular trichomes. The pointed hair-like trichomes that can be seen below protect the leaves from herbivores and regulate temperature by deflecting excess solar radiation.



The essential oils stored within the spherical structures on the underside of lemon balm leaves are released when we rub them.

Once discharged from the storage vesicles, the aromatic volatiles quickly find their way into our nasal passages where they interact with myriads of super-sensitive scent receptors. Olfactory nerves are unique in their design - they're the only sensory nerves that connect directly and immediately to our brain. The aromatic molecules just released from the injured leaf go straight to the part of our brain where emotions are processed and emotional memories are stored.

And we instantly feel soothed, comforted, and calm.

How on earth does this work? There are actually several ways that the phytochemicals of lemon balm interact with our neurological system.

On an individual level, any fragrance associated with a specific pleasurable memory will trigger strongly positive emotions. The lemony aroma of *M. officinalis* might reawaken a pleasant memory of a long-ago lemonade on a lazy summer day, of your grandmother's lemon meringue pie, or even of the fresh, lemony scent of a clean home. Sometimes the memory itself doesn't reach consciousness, but the associated positive emotions overflow into awareness.

In addition to these highly personal emotional associations, many of the volatile aromatics produced by plants have a more direct, universal effect on the human brain. This is the basis of aromatherapy, the therapeutic use of essential oils extracted from plants. Research is still limited, but scientists are actively looking into how and why certain fragrances make us feel the way they do.

What is clear, though, is that the essential oils most consistently found to relieve anxiety consist of various combinations of the same chemicals that impart a lemony fragrance to plants.

To be specific, in *Essential Oils and Anxiolytic Aromatherapy* (2009), **William N. Setzer** states that the "popular anxiolytic essential oils generally seem to be dominated either by terpenoid alcohols (linalool, geraniol, and/or citronellol), the monoterpene limonene, or citral."



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Compare Setzer's statement to the remarkably similar list of the phytochemicals responsible for the lemony scents in plants - "Lemon scent and flavor primarily comes from a few terpenoid essential oils: citral (also called geranial, neral, or lemonal), linalool, limonene, geraniol, and citronellal." (See <https://botanistinthekitchen.blog/?s=lemon+flavor>)

What an intriguing coincidence! It seems that the phytochemicals that we perceive as lemony are the same ones that relieve anxiety and agitation!

Not only that, but they are the same chemicals released when we gently rub that lemon balm leaf - "the main components of the essential oil are citral (neral and geranial), citronellal, linalool, geraniol and  $\beta$ -caryophyllene-oxide." (<https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/lemon-balm>)

What about the other lemony herbs? The relative proportions of the lemony terpenoids vary for each plant, but those rich in the aromatic oils listed above, such as lemongrass, lemon verbena, lemon catnip, and lemon myrtle are all known to improve mood and promote relaxation. Ethnobotanical studies of traditional cultures show widespread use of these herbs for anxiety; in addition, there is a surprising amount of scientific verification of their benefits.



Irresistible! Lemon myrtle (*Backhousia citriodora*) and lemon catnip (*Nepeta citrate*)  
Try them both in soothing herbal teas (if you can keep Kitty away from the catnip).

Research on the therapeutic properties of lemon balm has been hindered by the very low oil yield from the plant, making therapeutic grade lemon balm essential oil one of the most expensive oils used in aromatherapy. In one study in England, though, researchers found that applying lemon balm oil to the face and arms of patients with severe dementia reduced their agitation significantly. (J Clin Psychiatry 2002 Jul;63(7):553-8)

Lemongrass essential oil, which consists of the same aromatic components as in lemon balm but in somewhat different ratios, is much easier to study. Research published in the *Journal of Alternative and Complementary Medicine* in 2015 found that participants exposed to lemongrass essential oil had an immediate reduction in anxiety and tension. Those who inhaled the lemongrass essential oil also recovered more quickly from a stressful situation compared to those who inhaled a control aroma.



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According to **Barbara Thomley**, lead coordinator for the Complementary and Integrative Medicine Program at the Mayo Clinic, citrusy aromas in general can alleviate physiological symptoms of stress. See <https://www.prevention.com/life/a20448271/scent-of-citrus-shown-to-reduce-stress/> for more information about stress-reducing aromas.

Let's look next at the therapeutic use of geranium essential oil. It might seem like a huge jump from lemon balm to geranium, but actually, the two herbs share several of the same psychoactive essential oils. Rub a geranium leaf and you'll smell its citrus notes; rub a lemon balm leaf, and if you can detect a rose scent, it's from geraniol. And both leaves contain large amounts of citronellol.

To mention just a couple of studies on geranium oil aromatherapy, researchers have found that inhaling geranium essential oil helps patients cope with pain and anxiety during labor (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4484988/>.) and after suffering a heart attack (<https://pubmed.ncbi.nlm.nih.gov/29122262/>.) The effectiveness of geranium oil for anxiety is generally attributed to the same essential oils that geranium shares with lemon balm - citronellol, geraniol, and linolool. It all makes sense.



What's so special about the sweet, relaxing scent of linolool? Found most famously in lavender, linolool is also present in significant amounts in lemon balm, lemon myrtle, and lemon catnip, and in lesser amounts in lemon verbena, and lemongrass. Research has repeatedly confirmed the beneficial effects of linolool for anxiety, insomnia, and panic attacks. While there are too many studies to discuss, it's beginning to look like linolool affects anxiety levels by altering the function of the GABA system in the brain. To simplify a very complex subject, GABA (gamma-aminobutyric acid) is the body's most important inhibitory neurotransmitter. GABA slows down the neural circuits that are active during emotional stress and over-active in anxiety states. Many of our most frequently prescribed medications, including benzodiazepines, antidepressants, barbiturates, and sleep medications, work by interacting with the GABA system.

Just like the benzodiazepines, linolool activates the GABA receptor sites in the brain. And, again, just like the effects of benzodiazepines, this brings about a state of relaxation, a more balanced mood, and improved sleep.

Linolool, one of the best-studied essential oils, elevates the mood in all age groups.

In a particularly interesting study from Japan, researchers showed that, in mice, inhaling linolool reduced the activity of more than 100 genes that go into overdrive in stressful situations (<https://pubmed.ncbi.nlm.nih.gov/19456160/>)

So far, we've only been discussing the volatile, or inhaled, chemicals produced by lemon balm and the other lemony herbs. But herbs are also consumed as part of a normal diet, and can be administered therapeutically in the form of teas, encapsulated dried leaves, extracts added to foods and drinks, topical preparations, and tinctures.





Numerous clinical studies show that lemon balm ingested in a wide variety of forms relieves chronic anxiety, reduces laboratory-induced psychological stress, and improves sleep quality (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230760/>)



Homemade lemon balm tincture is easy to make. See <https://www.growforagecookferment.com/lemon-balm-tincture/>

Lemon balm relieves agitation in people with dementia, (<https://pubmed.ncbi.nlm.nih.gov/12143909/>), and improves alertness, computational accuracy, and short-term memory in healthy subjects (<https://www.mdpi.com/2072-6643/6/11/4805>). Many other studies have confirmed the traditional wisdom of using lemon balm as a calming agent.

When lemon balm is inhaled - whether it's in the garden or in the laboratory - only the volatile, or air-borne, essential oils enter our bodies. But when we ingest lemon balm as an herb, tea, or tincture, a vast array of additional phytochemicals are absorbed into our bloodstream. Scientists are actively investigating which of the many ingested chemicals might be contributing to lemon balm's calming effects.

Research designed to answer this question consistently points to rosmarinic acid, a phytochemical present in large amounts in lemon balm extracts as well as in the fresh plants.

Rosmarinic acid is produced by several plants of the *Lamiaceae* family, including rosemary (*Rosmarinus officinalis*), from which it was originally isolated, sage (*Salvia officinalis*), basil (*Ocimum tenuiflorum*), perilla (*Perilla frutescens*), oregano (*Origanum vulgare*), marjoram (*Origanum majorcan*), and lemon balm (*Melissa officinalis*). It's also present in catnip (*Nepeta cataria*) and comfrey (*Symphytum officinale*). All of these herbs are known to have potent physiological effects.

Rosmarinic acid protects plants from viral and bacterial infections, and prevents damage from free radicals and ultraviolet radiation. But what does it do in animals, including humans? A lot, it turns out. There are several potential therapeutic applications being studied, including treatment of infections, immunological diseases, cancer, and a variety of neurologic and mood disorders.



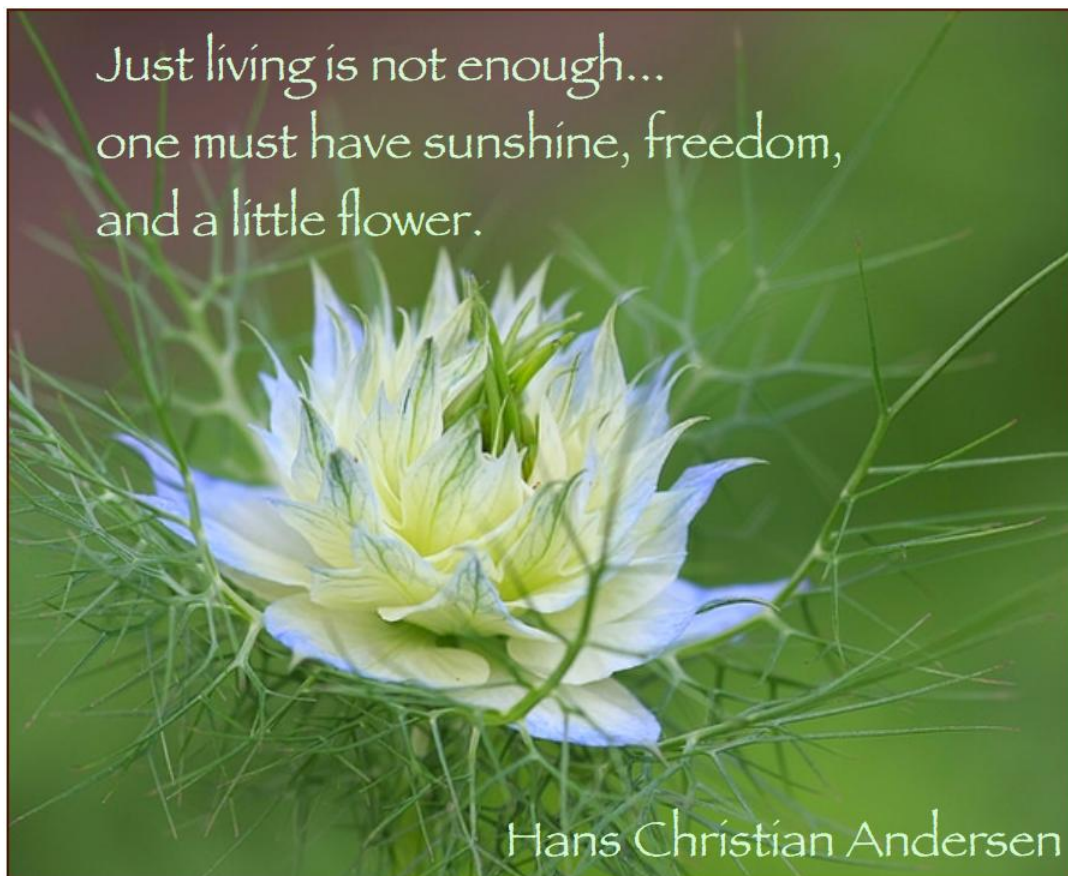
But how is it that rosmarinic acid, a protective chemical produced by plants for their own use, could possibly work to calm anxiety in humans?

We are back to the all-important GABA system in the brain. Just like linolool, rosmarinic acid reinforces the emotionally balancing GABA system in the brain. But it works in a completely different way! Instead of sneaking in and stimulating the GABA receptor like linolool does, rosmarinic acid prolongs the lifespan of each GABA molecule. There's an enzyme that normally dismantles GABA, and rosmarinic acid prevents it from doing its job. Whether the GABA receptor is activated by linolool, or rosmarinic acid prevents the break-down of GABA, the net result is that the GABA system is enhanced. And an enhanced GABA system translates into a calm, peaceful state of mind. Amazing.

Here's a final thought for all of you who love the scent of lemon balm. If you think lemony herbs such as lemon balm go the trouble of making these delightful scents just to please us and make us calm, think again! In the plant world, the actual purpose of producing lemon-scented essential oils is to keep plants safe from leaf-eating insects. The fresh scent that humans love is a repulsive, noxious repellent for insect marauders. And for plants, their relationship with insects is far more important than their relationship with humans will ever be!

How amazing that the chemicals designed to be repellent to one species somehow "*comforteth the hart and driveth away all sadnesse*" in another.

Nature works in mysterious ways!





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