

The Core Principles of Perfume Formulation

A WORKBOOK FROM THE
NATURAL PERFUMERY
WORKSHOP SERIES



THE NORTHWEST SCHOOL OF
AROMATIC MEDICINE



Making your own natural perfume isn't as hard as you might think...

Anyone can learn to make their own natural perfume at home, and it can be as simple or complex as you want to make it – as long as you have the right roadmap to follow.

Before you embark on this aromatic adventure, there are *fundamental principles* you must learn and master to ensure your perfume is a success.

Similar to cooking, you can't simply take ingredients that all taste great individually & throw everything together, expecting it to turn out great.

It just doesn't work that way.

There are specific techniques to the art of crafting natural perfumery.

One of the biggest challenges that novice natural perfume makers face...

...is investing a lot of time, effort, and money into creating a perfume, only to have it not turn out the way they'd hoped. This can lead to frustration and even thoughts of giving up completely...

Their perfume smells too sweet, too heavy, or too intense; their creations don't sparkle or have a "wow" factor; or something is just missing... or worst case scenario, it doesn't last long and evaporates too quickly!

These issues are incredibly common, and there's a real shortage of resources providing in-depth guidance on the fundamental building blocks of natural perfumery.

Until now...

In this guide, you'll learn **KEY** factors of perfumery that every natural perfumer needs to understand: the concept of fragrance notes and the art of formulation.

One of the biggest criticisms in the natural perfumery world is that natural fragrance blends don't last long enough.

It doesn't have to be this way!

The **KEY** to creating long-lasting natural perfume lies in how you mix and match fragrances and the specific materials that you use.

Mastering these tools will help you make exceptional-smelling fragrances that not only captivate the senses and soul but are well-balanced and long-lasting!

Let's dive in...





Fragrance Notes

Every plant in the aromatic botanical kingdom is unique, with its own individual aromas, influences, and volatilities.

Volatility refers to the rate an aromatic substance evaporates or vaporizes at normal temperatures into the air.

In perfumery, volatility is an important characteristic of fragrance notes because it influences how quickly different notes are released and perceived in a fragrance.

The scent pyramid is a conceptual model used in perfumery to categorize and describe the different fragrance notes based on their evaporation rate and contribution to the overall scent profile.

This helps us to understand how a fragrance unfolds over time.



The art of perfumery is all about creating a symphony of scent.

Oftentimes a natural perfumer's workspace is called a "perfumer's organ..."

Similar to how a musical composer blends notes to craft the perfect melody, perfumers combine fragrance notes to create unique and balanced scents.

Fragrance notes are classifications of the different scents that make up a perfume.

They are divided into 3 main categories: top notes, middle notes (also known as heart notes), and base notes.



Top Notes

Top notes are the first aromas that you notice when you smell perfume.

They are typically the most aromatic scents, but also the most volatile, and are quick to evaporate. They are light and fleeting, typically lasting for only about 15 to 30 minutes.

Top notes create the **first impression of a fragrance** and often include Citrus plants like Orange, Lemon, and Bergamot; and fresh notes like Eucalyptus.

Like a garnish in a food dish, top notes accentuate the heart and base of the recipe.



Middle (Heart) Notes

After the top notes dissipate, the middle notes emerge.

Middle notes are also often referred to as heart notes because they represent the **heart** of the fragrance, the main character and personality of the perfume.

They typically last around 2 hours in fragrance.

Middle notes often include absolutes and florals like Orange Blossom, Jasmine, and Rose – which are called the “3 Queens of Natural Perfumery” because they are often seen together in the heart notes of many perfumes.

In a food recipe, heart notes are like the main flavor of the dish.



Base Notes

Base notes form the foundation of the fragrance and emerge after the middle notes have settled.

They are rich, deep, and long-lasting, providing stability and longevity to the scent.

Base notes can linger for hours or even days and often include woody, musky, balsamic, and resinous notes.

Similar to the bass notes in a musical composition, these are the deepest, **foundational scents** that support the rest of your aromatic symphony.

In food, these would resemble the type of meat used in a dish.

The Evaporation Curve

The evaporation curve, often referred to as scent progression, serves as the roadmap for a fragrance's development.

It describes how each note unfolds over time, creating a narrative that engages all of our senses.

Smelling through a fragrance...

To perceive a fragrance fully is to tune in to the tale that's told within each aromatic material.

From the initial burst of top notes to the heart of the fragrance and into the lingering embrace of base notes, **there's a story that's told with each material** used in the composition.

It's a journey of olfactory discovery where each ingredient plays a vital role in shaping the final olfactory masterpiece.

This is a skill you will develop over time with practice.





The Art of Formulation

Now that you understand the scent pyramid, you can learn how to formulate a well-balanced natural perfume using your knowledge of fragrance notes.

There are **2 main ways** to create a formula:

Come up with an inspiration or concept that you want to portray, or...

Have an idea of what specific aromatic materials you want to use, then brainstorm a concept from there!

Be sure to write down any ideas and formulation details in your notebook, including the date, name of your concept or formula, all ingredients and their quantities, the size of your bottle, and any other items that feel important to you.



The Formulation Process

First, perfumers typically create a perfume concentrate, also known as a perfume extract. This is a pure concentration of aromatic materials, which is then used to make fragrances later with the dilution of alcohol, or used as an attar perfume.

The key to making a well-balanced fragrance – especially when you're working with natural materials to make natural perfume – is to **ensure that the fragrance notes in your composition are equally balanced.**

If there are too many base note materials, your perfume is going to smell *muddy, flat, heavy, and dense*.

If there are too many notes in the heart, your fragrance *won't last very long*.

And if it's all top notes, your perfume will be too volatile and *evaporate in minutes*.



The “30-30-30 Split”

The classic natural perfume formulation I use time and time again is what I like to call the “30-30-30 Split.”

This translates to $\frac{1}{3}$ of the formula is made up of top notes, $\frac{1}{3}$ is heart notes, and $\frac{1}{3}$ is base notes.

This ensures that you will create a balanced and even formulation that lasts.

Following this “30-30-30 Split” template will give you a well-balanced, long-lasting perfume every time.



Natural Perfumery Tools

Now that you understand the foundations of perfumery, you are ready to take the next step on your aromatic journey – making your own natural perfume! First, you'll want to gather a few essential tools and ingredients to help you create the **captivating perfume blend in our next video**.

To get started on your natural perfumery journey, you will need:

- **Notebook:** Detailed notes are important so you can replicate & modify recipes
- **Labels:** Be sure to label everything!
- **Milligram scale** (0.001 grams): Professional perfumers measure by weight (not volume or drops)
- At least 10 glass or plastic 1-mL **graduated pipettes**
- At least 1 5-mL **spray perfume glass bottle** (aka atomizer)
- At least 1 oz of **alcohol**: Organic 190-proof alcohol or lab-grade alcohol (if you plan on making more natural perfume in the future, getting 1 liter is a good amount to start out with, but you will only need 5 mL for the recipe in the final lesson)
- Variety of glass bottles & sample vials for storage (optional)
- Perfume scent cards (optional)



Natural Perfumery Tools

You'll also need a variety of essential oils and/or absolutes to be prepared to make the natural spray perfume recipe in the next video. You may already have some of these ingredients on hand.

The recipe in the next video lesson calls for the following ingredients **listed in bold**. You will just need a small amount of each aromatic material listed below. You can follow the recipe as is or make substitutions depending on what you have & your budget. Don't worry – you can use any variety of plant species or what you have access to.

Here's an idea of the oils you should gather for the next video:

- **Lemon Petitgrain Essential Oil (EO):** You can also use Lemon EO or a different Citrus EO like Bergamot, Orange, or Grapefruit
- **Frankincense EO:** Any light-colored *Boswellia spp.* variety will work
- **Bulgarian Rose absolute:** You can also use any *Rosa spp.* EO or absolute, or Rose Geranium EO
- **Indian Jasmine absolute:** Any variety will work
- **Kashmir Lavender EO:** Any variety will work
- **Indonesian Vetiver EO:** Any variety will work
- **Sri Lankan Patchouli EO:** Any variety will work
- **Amyris EO:** Any light-colored wood will also work, like Cedarwood, Cypress, or Sandalwood EO

Natural & Sustainable Ingredient Sources

Be sure to gather the items listed in the Natural Perfumery Tools pages if you're gearing up to create your own natural spray perfume in the upcoming video!

Here's a list of our favorite sustainable suppliers:

Aromatics International: www.aromatics.com

For sustainably sourced EOs and absolutes

Mountain Rose Herbs: www.mountainroseherbs.com

For EOs, absolutes, and other herbal products

Organic Alcohol: www.organicalcohol.com

Best Bottles: www.bestbottles.com





In the world of natural perfumery, there are 3 foundational fragrance notes: top, middle (heart), & base notes.

Understanding the unique qualities of each of these notes and finding a harmonious balance among them is essential in your perfume crafting journey.

So far, you've learned the significance of the volatility of aromatic materials & how that impacts their place in the fragrance pyramid. You've explored the evaporation curve & how it serves as the roadmap for a fragrance's development over time.

You've also learned the basic steps to begin fragrance formulation and the essential tools you will need to get started.

You now possess awareness of the key natural perfume building blocks.

However, to truly succeed in creating well-balanced, long-lasting blends, you'll need to understand how these components all work together.

Next Up...

In the final lesson of this series, we'll guide you step-by-step through the process of crafting your very own balanced, long-lasting natural spray perfume.

You'll gain insights into every stage, from raw ingredients to the finished product.

Plus, you'll get a fun, simple DIY formula to make at home, and we'll supply you with recommendations for sourcing your ingredients so you can easily craft this perfume.

The formulation secrets revealed in the next lesson will lay the groundwork for your natural perfumery practice and can be adapted for crafting any type of perfume...

...Propelling you into the beautiful, wide world of fragrance creation.



You're going to love the final lesson of this series!

See you there.

-JK DeLapp