



NATURAL INGREDIENT CALCULATOR

A GUIDE THROUGH THE JUNGLE OF PLANT USAGE IN PERFUMERY

“To have a fragrance smell of vetiver you must use a certain amount of it. The problem we have today is we all use these beautiful [natural] materials, but we use them in a homeopathic dosage because the money that is allowed to us to work on a project is just not enough.”*

Harry Fremont, DSM-Firmenich*, Master Perfumer, in *Perfumer & Flavorist*, 2010

PREMISE

Perfumery is an art form. A perfume creation results from a unique combination of creativity, imagination, materials, know-how, sweat and logistics.

INTENT

This document advocates for the fair usage and defends the poetry of natural ingredients as well as the livelihood of farmers and global biodiversity. It highlights the disparity between the marketing of numerous luxury brands, be they commercial, pseudo-niches and some niche, and the actual content of too many fragrances.

The high prices of many fragrances orchestrated by packaging conglomerates and fixed by department stores is, to the best of our knowledge, little due to their content in natural ingredients and even less to the cost of harvesters.

We believe the public deserves to know how their dollars are utilized and whether farmers, cooperatives and perfumers are being respected. We believe countries should look into applying the Nagoya protocol in more concrete ways in the context of fragrances.

The calculator below estimates the cost for a brand to integrate 0.05% of a specific ingredient into a fragrance oil, and subsequently into the final bottle after adding alcohol. Many precious ingredients are used at 0.05% or less in the fragrance concentrate (the formula). The next line shows what it would cost for a brand to add 1% instead. The extent of the impossibility demonstrates how much perfumers are squeezed by procurement teams away from fair respect and most poetry.

Note: This document does not aim to calculate the final cost or price of a creation. It does not imply that formulas with more natural ingredients hold greater artistic value than a creative formula based on more molecules.

*The “money” is not determined by the fragrance studios such as DSM-Firmenich, IFF, Givaudan, Mane, Symrise, Takasago, etc., but by packaging conglomerates between the consumer and those creative studios. Although it is unclear to which brand(s) specifically Mr. Fremont was referring, the numerous luxury and lifestyle brands for which Mr. Fremont created are widely mentioned online.



INGREDIENT Pure and natural extract no solvent added	APPROX INGREDIENT PRICE /kg** (\$~EU)	% in fragrance formula (in concentrate)	EDT per USD 50mL bottle	EDP per USD 50mL bottle
AMBRETTE SEED ABSOLUTE ECUADOR	14000.00	0.05%	\$0.04	\$0.07
AMBRETTE SEED ABSOLUTE ECUADOR	14000.00	1.00%	\$0.70	\$1.40
JASMINE ABSOLUTE EGYPT	6000.00	0.05%	\$0.02	\$0.03
JASMINE ABSOLUTE EGYPT	6000.00	1.00%	\$0.30	\$0.60
JASMINE ABSOLUTE INDIA	7000.00	0.05%	\$0.02	\$0.04
JASMINE ABSOLUTE INDIA	7000.00	1.00%	\$0.35	\$0.70
JASMINE ABSOLUTE GRASSE	70000.00	0.05%	\$0.18	\$0.35
JASMINE ABSOLUTE GRASSE	70000.00	1.00%	\$3.50	\$7.00
NARCISSE ABSOLUTE FRANCE	20000.00	0.05%	\$0.05	\$0.10
NARCISSE ABSOLUTE FRANCE	20000.00	1.00%	\$1.00	\$2.00
NEROLI OIL TUNISIA	12000.00	0.05%	\$0.03	\$0.06
NEROLI OIL TUNISIA	12000.00	1.00%	\$0.60	\$1.20
TUBEROSE ABSOLUTE INDIA	20000.00	0.05%	\$0.05	\$0.10
TUBEROSE ABSOLUTE INDIA	20000.00	0.30%	\$0.30	\$0.60
ORANGE FLOWER ABSOLUTE MOROCCO	12000.00	0.05%	\$0.03	\$0.06
ORANGE FLOWER ABSOLUTE MOROCCO	12000.00	1.00%	\$0.60	\$1.20
ORRIS ABSOLUTE	100000.00	0.05%	\$0.25	\$0.50
ORRIS OBSOLUTE	100000.00	1.00%	\$5.00	\$10.00
OUDH (lots of grades ask to see/smell the extract used)	30000.00	0.05%	\$0.08	\$0.15
OUDH (lots of grades ask to see/smell the extract used)	30000.00	1.00%	\$1.50	\$3.00



ROSE ABSOLUTE BULGARIA	12000.00	0.05%	\$0.03	\$0.06
ROSE ABSOLUTE BULGARIA	12000.00	1.00%	\$0.60	\$1.20
ROSE ABS FRANCE/MAI/GRASSE	20000.00	0.05%	\$0.05	\$0.10
ROSE ABS FRANCE/MAI/GRASSE	20000.00	1.00%	\$1.00	\$2.00
ROSE ABSOLUTE TURKEY	7000.00	0.05%	\$0.02	\$0.04
ROSE ABSOLUTE TURKEY	7000.00	1.00%	\$0.35	\$0.70
ROSE OIL BULGARIA	25000.00	0.05%	\$0.06	\$0.13
ROSE OIL BULGARIA	25000.00	1.00%	\$1.25	\$2.50
ROSE OIL TURKEY	25000.00	0.05%	\$0.06	\$0.13
ROSE OIL TURKEY	25000.00	1.00%	\$1.25	\$2.50
ROSE OIL "UPCYLCLED" "LIFTED"	800.00	0.05%	\$0.002	\$0.004
ROSE OIL "UPCYLCLED" "LIFTED"	800.00	1.00%	\$0.04	\$0.08
SANDALWOOD ALBUM INDIA/SRI L/AUST	6000.00	0.05%	\$0.02	\$0.03
SANDALWOOD ALBUM INDIA/SRI L/AUST	6000.00	1.00%	\$0.30	\$0.60
TONKA ABSOLUTE	3000.00	0.05%	\$0.008	\$0.015
TONKA ABSOLUTE	3000.00	1.00%	\$0.15	\$0.30
VANILLA ABSOLUTE MADAGASCAR	15000.00	0.05%	\$0.04	\$0.08
VANILLA ABSOLUTE MADAGASCAR	15000.00	1.00%	\$0.75	\$1.50
VANILLA INFUSION	60.00	0.05%	\$0.000	\$0.000
VANILLA INFUSION	60.00	1.00%	\$0.003	\$0.006

** Prices are indicative: don't pressure your farmers or suppliers because your pricing is 5K more or less than the prices above. This does not change much the gist of this document. It would rather show the extent of the desperation to make extra bucks at the detriment of farmers, fragrance houses or consumers.



BE AWARE TO FEND OFF DECEIVING ANSWERS

WHAT TO WATCH:

- ❖ Confirm whether your reporter uses “%” or “parts” per thousand: 3 parts of Tuberose equate to 0.3%. Make sure this refers to pure Tuberose absolute. At times, 3 parts at 10% is the understanding, meaning 0.03% of pure Tuberose only in the concentrate. This is 0.003 – 0.006% in the bottle approximately, once alcohol is added.
- ❖ Naturals can be diluted in solvents for good processing reasons or for other reasons... The numbers above are for the 100% pure and natural plant extract.
- ❖ The solvent farce: most solvents are very inexpensive and some are even 100% natural. You could easily be misled to believe the fragrance is 90% natural in precious expensive materials when in fact it is 89% natural solvents, natural alcohol, and say orange oil (a very inexpensive ingredient). Ask for specifics. It sadly seems a must to navigate this mathematical phase for a while. Conglomerates have certainly been doing the math for decades at the delight of their managers and investors. Let’s allow perfumers, farmers, journalists and connoisseurs to now do the math for you.

DEMANDING AUTHENTICITY IN FRAGRANCE

- ❖ Brands often claim to use the finest ingredients. We assume they don’t use fat-free extracts such as “deodorized” or other distillations from the rubbish of finer distillations.
- ❖ Most brands still have no perfumer inside. They do not know the exact qualities of each ingredient found in their juices, juices that they buy in bulk by the kilo, like potatoes for the fries at McDonald’s, under extreme, even brutal, pressure from what I have heard, from their procurement departments. Brands are not known to personally scavenge the world in the tireless pursuit of the best ingredients and qualities. It was reported that some suddenly shut down their procurement from a country, leaving the farmers in limbo. They rarely tell you when the formula changes, either.
- ❖ Be aware of the undue hardship for pretty claims on packaging such as green and clean (all bets are off, no official definition) or organic. You really care to know from what tree, what patch that one drop of Tonka in your bottle is from? Fine, but do you make sure the farmers receive the necessary budget and volume to satisfy reasonable and unreasonable requests from brands such as the extra mile they must run and you must spend to buy such a sustainable fully traceable bottle? Do you care for the farmers, as careful and respectful as others, but who are now shunted because they don’t have a GPS system in place or did not go through the organic certification process (tedious and expensive, not prepaid by brands to the best of our knowledge) or who are sustainable but not organic? Organic is often not sustainable on the global scale. Do clean brands guarantee volume or place a purchase order 3 years in advance when plants have to be planted? “Vegan” in perfumery means mostly a lot of synthetics in the formula, not a lot of plants.



BE COLOR SMART

- ❖ Clear, colorless juices have extreme constraints on quality naturals and the quantities at which they can be used, if at all, because of their often yellow or dark amber natural colors. In fact, many key naturals are excluded from such projects. Similarly, pure pink and pure blue juices should raise an eyebrow if you are looking for a decent amount of naturals such as jasmines, oud, tuberose, unfiltered rose absolute (including the French rose from Grasse), narcisse, etc. Pink would turn orange, and blue would turn green, if there were any decent yellow shade from a natural in the juice. So-called “decolorized” Jasmine and Tuberose absolutes are still very yellow in color. In brief, open your eyes along with your nostrils.
- ❖ EDP's can be sent for color addition to appear darker so the public believes that the juice is stronger or richer. Again, be aware of marketing wording (“the finest ingredients”) as well as the bias of your own perceptions.

BE PACKAGING SMART

- ❖ It is well-known that thick glass bottles and heavy caps elevate the perceived value of the product compared to its actual content. Glass production is energy-voracious, and transportation is one of the biggest contributors to global warming. Isn't that a greater concern for sustainability than bothering with the carbon consumption of a rose still in the fields of Turkey or Morocco producing a few kilos of precious essence here and there?
- ❖ It was reported by a past factory manager for one of those French brands that we do not adore, that the charm on a perfume bottle can exceed the cost of the actual juice inside the bottle. Consumers typically wear the fragrance, not the faux-gold charm dangling from the bottle. If the budget is there, pay attention to how it is allocated to impress.
- ❖ When a brand stops a fragrance on a whim, at times when farmers need production the most, what happens to those farmers and harvesters whose plants were used so much in the press presentations to sell that said fragrance? What happens to the animals, from mammals to birds to insects living off these unique plants? For instance, have the profits contributed to a conservation fund?

LAST BUT NOT LEAST

Don't you like strolling through rose and lavender fields to take pictures and sniff around rather than walking through palm tree, corn or rapeseed fields?

A CALL TO ACTION

Investigate, investigate, investigate and inquire, before influencing, deciding to purchase or boycott, or even before accepting a sample, unless it is to send it to analysis.

