

Haitian Vetiver: Uprooted?

How has the recent earthquake in Haiti affected the supply of vetiver, and what are the perfumer's alternatives?

By Christian Thwaites, Northwest Aromatics

When it comes to naturals, some ingredients are fashionable, some are standard, and some are simply indispensable. To the latter category belong the cedars, the roses and, of course, the vetivers. Vetiver oil (*Vetiveria zizanioides*), with its heavy, woody and earthy character, is one of the perfumer's most basic and traditional materials. However, like other traditional materials (sandalwood oil comes to mind), vetiver oil is an extremely expensive ingredient with a precarious supply situation subject to the forces of nature and politics.

Most perfumers don't need to be convinced of vetiver oil's importance. The oil's heavy, earthy, woody character is very pleasant and distinct. Its heavy viscosity makes it extremely persistent and, thus, a popular lower base note. Its alcohol solubility ensures the oil is highly miscible in fragrance formulations. With all these positive characteristics, it's no surprise that vetiver oil is present in more than 36% of commercial perfumes (e.g. *Chanel No 5*, *Miss Dior*, *Cravache* and *Shalimar*) and is the primary ingredient/note in such fragrances as *Vetiver pour Homme* and *Vetivert*. This material is so crucial to the industry, in fact, that in the wake of the earthquake that struck Haiti on Jan. 12, 2010 fragrance house Creed donated proceeds from its online boutique to ADRA (www.adra.org) to provide medical services and water purification in the affected region, while Estée Lauder extended its sustainable vetiver project with EVI to raise money for earthquake relief (to cite just two examples).

Production figures bear out this importance. Current worldwide production is as large as 250 tonnes per year.¹ This production volume is made up of a dozen different varieties of vetiver oil: Haiti (100 tonnes), Indonesia (80 tonnes), China (20 tonnes), India (20 tonnes), Brazil (15 tonnes), Dominican Republic (12 tonnes), Vietnam (3 tonnes), El Salvador (2 tonnes), Madagascar (2 tonnes), Nepal (0.5 tonnes), Reunion (Bourbon) (0.5 tonnes) and Ghana (0.4 tonnes).² Of course, not all vetiver oils are created equally. The oils produced out of Reunion (Bourbon) and Haiti are far and away considered the highest quality oils, both containing a desirable roseate note. The Indonesian and Chinese oils, meanwhile, are significantly less well regarded and can face quality control issues. As a result, it is ultimately the Haitian oil—high in quality and sizeable in production—that has emerged as the market leader.



Supply Issues and Alternatives

The importance of Haitian vetiver oil, however, can be contrasted starkly against its problems. First of all, it's expensive, selling (by some reports) for around \$130/lb; natural disasters and/or short-term supply interruptions can cause short-term pricing spikes (figures vary). Secondly, it's subject to supply instabilities, particularly after the devastating earthquake. The International Trade Centre (www.intracen.org) states that "Haitian vetiver oil is in short supply" and that prices are increasing. Furthermore, the material has suffered accusations of market distortions caused by the highly controlled Haitian production and export system.³ In fact, the main challenges for the supply of Haitian vetiver oil can be characterized as more systemic (pricing, local producers' access to credit) than short-term (natural disasters, etc.). The price increases resulting from this mix of issues have not always been acceptable to the fragrance industry.

These problems would not be so troubling if other sources of high quality vetiver oil were easily accessible. But this is not the case. The quality of Chinese vetiver oil is generally considered poor, as reflected in its lower price point. Similarly, Indonesian vetiver oil, which makes up more than 30% of the total market, has a reputation for being of an "indifferent and variable quality."⁴

For an ingredient this important, these price and supply problems at times necessitate alternatives. Consequently, flavor and fragrance houses have pursued several alternatives to vetiver oil, though none are a "magic bullet" replacement. Take, for example, synthetic reproductions. Although vetiver is considered highly difficult to reproduce

with synthetic aroma chemical formulas, attempts have been made. These may include materials such as guaiyl acetate, isobutyl ionone, α -isomethyl ionol, methyl tetrahydroionol acetate and, arguably the most successful of these synthetics, methyl cedryl ketone (IFF trade name: Vertofix Coeur). As far as naturals go, perfumers have looked to Nagarmotha oil (*Cyperus scariosus*), guaiacwood oil (*Bulnesia sarmientoi*) and patchouli (*Pogostemon cablin*) as potential alternatives. All of these products, both synthetic and natural, have some degree of market acceptance, though of course not the richness and depth of vetiver oil. As a result, companies continue to search for the perfect replacement.

The price and supply problems related to Haitian vetiver are not expected to disappear anytime soon, and so solutions that provide perfumers with an important alternative will continue to be crucial.

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The magnitude 7.0 earthquake that struck Haiti on Jan. 12, 2010 caused widespread death and destruction and interrupted—or even destroyed—much of the troubled nation's commerce.

References

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2. Ibid
3. H Surburg and J Panten, *Common fragrance and flavor materials: preparation, properties and uses*. 5th ed, 408 (2006)
4. Ibid

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