

A close-up photograph of several dark, wrinkled vanilla beans tied with natural twine, resting on a piece of light-colored, textured burlap fabric. The lighting is warm and directional, highlighting the textures of the beans and the fabric.

NIELSEN · MASSEY

FINE VANILLAS & FLAVORS

CROP REPORT

January 2019



CROP REPORT

Following several years of volatility in the global vanilla market, the health of the sector has improved slightly as the 2018 crop in Madagascar appears to be of better quality than in recent years. However, the supply chain for this popular spice remains fragile, given that many of the areas ideally suited for growing vanilla remain subject to natural disasters or political instability. For example, Indonesia, the world's second-largest vanilla producer, experienced a series of natural disasters last fall, including earthquakes and tsunamis that inflicted an estimated \$1 billion-plus in damage, severely impacting the vanilla-growing regions of Sulawesi and Lombok. As a result, more than 15 percent of the country's vanilla crop was destroyed, negatively impacting vanilla exports in 2019. Nielsen-Massey continues to support vanilla farmers in the region while providing resources and assistance to those affected by these calamities.

This report provides an update about trends across traditional vanilla-producing regions and highlights new and emerging producers of vanilla. We also focus on several of our sustainability partnerships, initiatives and future endeavors to strengthen the vanilla-growing sector, while preserving the environment. We hope you enjoy this report, and invite your questions or comments.

MADAGASCAR CROP UPDATE

Recent indications lead us to believe that this year's vanilla crop in Madagascar will be similar in size to last year – about 1,500 metric tons, or slightly larger. We are pleased to report that the quality of beans appears to be markedly improved compared to recent years. Following years of record-high prices which drove speculation, poor quality control and lack of market discipline, the Malagasy vanilla-growing sector seems to have finally exerted control in 2018 and is adhering to government-mandated picking dates and other initiatives to improve the crop quality.

However, looking ahead to next year, there are concerns about later-than-normal flowering periods in certain regions due to heavy fall rains. The extended growing season could prompt a return to lower quality beans, as farmers may feel pressure to pick the crop early, reducing yields and adding to price uncertainty. We will monitor conditions on the ground and will provide additional updates following our team's upcoming visit to Madagascar.



VANILLA BEANS CURING IN THE SUN

PRICING

While global prices for vanilla beans have stabilized, the market remains fragile. The undeniably improved quality and size of the recent Madagascar crop have contributed to this development. A prolonged period of high prices has slowed global demand growth for natural vanilla, as large food manufacturers and other industrial buyers have shifted to natural alternatives and more affordable blends, where possible.

Vanilla prices have been slightly affected by the value of Malagasy currency, the Ariary, which weakened versus the U.S. dollar in the run-up to recent presidential elections in November. The paradox of Madagascar is that despite benefiting from strong vanilla prices, the country remains one of the world's poorest; around 76 percent of its residents live in extreme poverty. The country's wealth disparity is large, and inflation has been rampant. Millions of dollars pouring into the country in recent years has raised the cost of living for those at the lowest rung of the economic ladder.

NEW PRESIDENT ELECTED IN MADAGASCAR

Following a hard-fought presidential election, Andry Rajoelina has been confirmed by the country's constitutional courts as the next president of Madagascar. Mr. Rajoelina, a 44-year-old businessman, previously served as the president of Madagascar from March 2009 to January 2014. We will continue to monitor the political situation in Madagascar, as it remains unclear what impact the new president's policies will have on the country's vanilla-growing sector.

In 2018, government and private sector organizations supported the vanilla industry by promoting measures such as preventing early picking, vacuum packing of partially cured vanilla beans and theft. These programs also encourage the use of traditional curing methods that maintain vanilla's more than 300 complex flavor compounds.

A variety of factors within Madagascar, most notably weather-related concerns, public health and political uncertainty, will continue to drive volatile global vanilla prices. As the world's leading supplier, Madagascar will continue to dominate the vanilla-producing sector for the foreseeable future, even as other countries invest to expand their own vanilla-growing capacities.



BUNDLES OF UNCURED VANILLA BEANS

EXPANDING VANILLA PRODUCTION WORLDWIDE

Collectively, the traditional vanilla-growing countries of Madagascar, Indonesia and Papua New Guinea produced more than 90 percent of the world's vanilla in 2018. However, record vanilla prices have spurred other countries to invest in vanilla production capabilities. In some cases, this is an entirely new agricultural initiative, but for many countries, it's about resurrecting an industry that was previously abandoned when prices collapsed over the course of several boom and bust cycles. Below, we outline new developments in the expansion of vanilla production around the world, which, over time, may help further expand and diversify vanilla production.



EMERGING VANILLA-GROWING REGIONS

1) HAWAII/COOK ISLANDS



Hawaii currently features the only commercial vanilla farm in the United States. Because vanilla can only be grown approximately 20 degrees north or south of the

equator, Hawaii is ideally suited for growing vanilla. The biggest challenge facing Hawaii's vanilla-growing sector is the high cost of labor and production compared to other regions. Directly south of Hawaii in the Pacific Ocean, the Cook Islands are also making investments to promote the growth of a vanilla-exporting sector. In recent years, the Cook Islands' Ministry of Agriculture and Business Trade Investment Board has encouraged farmers to take advantage of government support to grow vanilla, while the government is simultaneously making efforts to create a strong export brand.

2) FLORIDA



Researchers at the University of Florida announced plans to investigate the viability of growing vanilla in the continental United States. The decision to conduct the study was motivated by the desire of

Florida farmers to diversify their existing monoculture crops as a means of increasing agricultural productivity and revenue. The potential exists for vanilla vines to grow in tandem with avocados, citrus or nut trees, all of which thrive in Florida. Four species of vanilla orchid are native to the state, but each are endangered because of habitat loss and/or illegal collection. Researchers are hoping to use genetic material from these native orchids to grow commercial crops.

3) TANZANIA



As Madagascar and Uganda continue to dominate the world's supply of vanilla, there is no surprise that additional African countries have begun experimenting with vanilla production. Due to recent investments

from non-governmental organizations and businesses, some Tanzanian farmers are harvesting vanilla to diversify their crop output. Farmers in Tanzanian regions such as Kagera, Morogoro and Kilimanjaro have also begun to cultivate vanilla.

4) COMOROS



Located on an island near Madagascar and with a similar climate, Comoros is ideally situated to become a larger grower and distributor of vanilla. The island has

grown vanilla for 40 years, although its production is far less robust than Madagascar's. With support from the United Nations Development Program and International Trade Centre, Comoros developed a vanilla co-operative, and the Comoros government also established a National Office of Vanilla to promote industry expansion.

5) SAMOA



In response to significant and growing interest in cultivating vanilla in the South Pacific, the Samoan government has taken recent steps to incentivize the creation of a functioning vanilla industry. In 2018, Samoa's Prime Minister became a strong advocate for vanilla. The Samoan government has subsequently offered agricultural loans to help create vanilla farms.



SUSTAINABILITY INITIATIVES

Throughout our 111-year history, Nielsen-Massey Vanillas has embraced the value of sustainability. We now have two full-time employees leading sustainability initiatives, supported by a Madagascar-based consultant, Danny Hervol, who helps the company stay informed about ongoing trends in the vanilla-growing sector. Our dedicated sustainability team travels to Madagascar multiple times each year to meet with suppliers and farmers, and we remain closely connected to the challenges faced by these groups and their communities.



NIELSEN-MASSEY EXECUTIVES EXAMINE
VANILLA VINES IN MEXICO

Nielsen-Massey has been an active member of the Sustainable Vanilla Initiative (SVI) since the organization was formed, and sits on its steering committee. SVI is an industry-wide organization focused on supporting the vanilla sector, and Nielsen-Massey supports several of its sustainability initiatives. We are currently developing a supplier code of conduct agreement that will ensure suppliers adhere to SVI's core principles.

In partnership with other SVI member organizations, Nielsen-Massey is also developing a traceability tool that targets vanilla farmers and seeks to promote International Labor Organization policies that deter methods of child/forced labor. In accordance with our mission to support farmers, Nielsen-Massey has also provided our growers with vital supplies to guard their crops against potential theft.

We are committed to reducing the impact our company has on the environment. Although Nielsen-Massey's production processes currently generate little waste, our team is conducting an audit to identify ways to further reduce our environmental impact.

UGANDA UPDATE

Nielsen-Massey has worked closely with the Ugandan government, along with vanilla farmers and exporters in the region, to advance the country's vanilla-growing sector. In 2018, Nielsen-Massey's team and members of SVI met with the Ugandan Minister of Agriculture to discuss ways to implement a regulatory framework for growing vanilla and bolstering the quality of exports.

INDONESIA UPDATE

Our sustainability team recently met in New York with the Sultan of Yogyakarta, Indonesia, to discuss plans to implement a food forest garden program. Nielsen-Massey will serve as a consultant for this program and incorporate vanilla vines into the project. Such gardens have become increasingly popular among farmers seeking to develop sustainable, permaculture plant-based food production systems that manage agricultural landscapes in harmony with nature. Food forest gardens incorporate perennial, low-maintenance crops that leverage natural nutrient inputs, drainage patterns and climate to achieve a self-sustaining, food-producing ecosystem. Typically, they include a canopy of nut and fruit-producing trees and shrubs, under which grows a garden of smaller plants including herbs, vines and ground flora that produce fruits, vegetables, and edible greens and roots.



THE NIELSEN-MASSEY
LEADERSHIP TEAM WITH THE
ROYAL FAMILY OF YOGYAKARTA
(INDONESIA)

FUTURE SUSTAINABILITY PROJECTS

We are currently pursuing additional sustainability projects around the world, including in Mexico, where members of the team will be visiting in the first quarter of 2019.

In Madagascar, we hope to launch a program with a local supplier to train farmers in the development of integrated farming systems, which are practices that seek to create sustainable agriculture, prevent deforestation and diversify crop output. These processes have proven successful in helping farmers grow a variety of crops for sale and consumption.

We look forward to releasing our first-ever sustainability report this year, which will outline all the sustainability initiatives Nielsen-Massey is pursuing. We anticipate releasing quarterly updates moving forward.

As Nielsen-Massey looks to a bright future in 2019, we remain committed to strengthening and diversifying our supply chain to better serve the needs of our valued customers. In the coming months, we will provide additional updates on supply, pricing and other news pertinent to the vanilla industry within Madagascar and across an expanding number of vanilla-growing countries. To learn more, look for our next crop report coming out this summer.

Thank you for your continued interest in Nielsen-Massey and the global vanilla industry. Please let us know if you have any comments or questions.

Sincerely,

Craig Nielsen
Vice President of Sustainability