

Vanilla: Sourcing, Global Supply Concerns & Applications in Frozen Desserts

**CRAIG NIELSEN
ICE CREAM TECHNOLOGY CONFERENCE
MADISON, WI
OCTOBER 23, 2023**

GLOBAL SOURCING

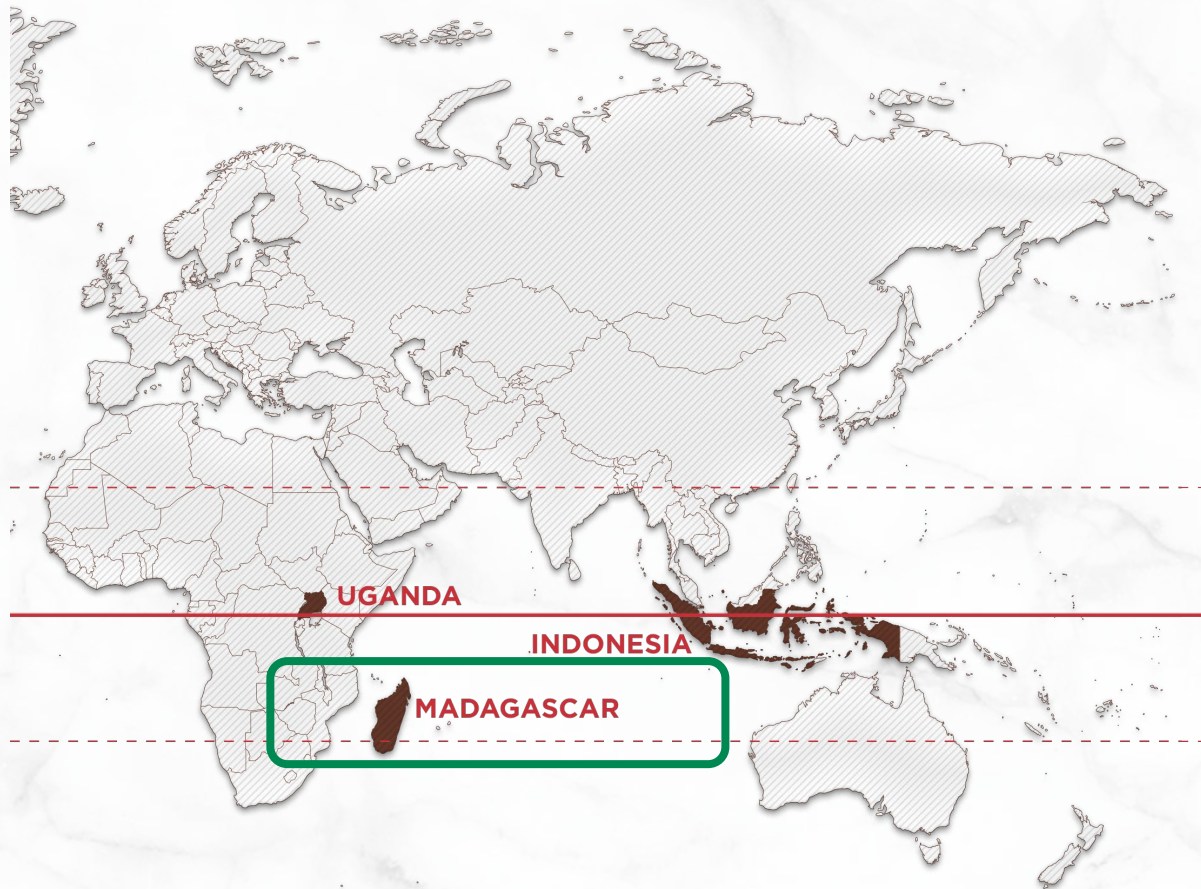


VANILLA GROWING REGIONS



VANILLA GROWING REGIONS

Madagascar



Madagascar Facts

- First began production of vanilla in 1793
- World's largest producer (2,500+ tons annually)
- Account for 75-80% of worldwide vanilla bean supply
- Grows mainly on Northeast portion of island due to constant temperature and even rainfall
- Some grown in Northwestern portion also, Additional production is moving southward down east coast due to climatic change
- 80,000-100,000 vanilla farmers. Most farms small and family-owned – 1-2 hectares
- Majority of farmers solely rely on vanilla for income
- Best growers and curers. Ingrained in culture



Madagascar Vanilla Growing Region - SAVA

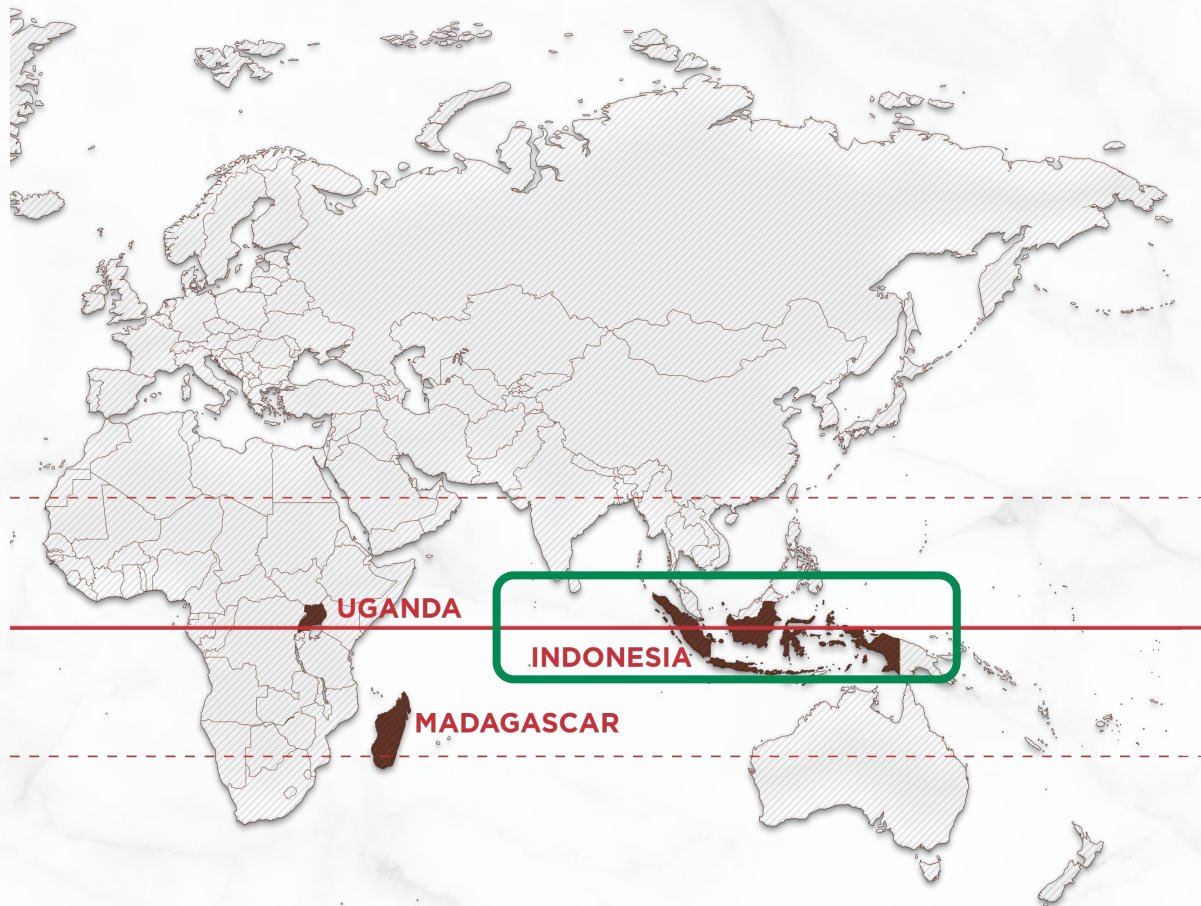
- ◆ SAVA is in the northeast region of Madagascar
- ◆ Accounts for 70-80% of total Madagascar vanilla bean production
- ◆ The acronym represents the first letter of each town:
 - Sambava
 - Antalaha
 - Vohemar
 - Andapa



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FINE VANILLAS & FLAVORS

VANILLA GROWING REGIONS

Indonesia

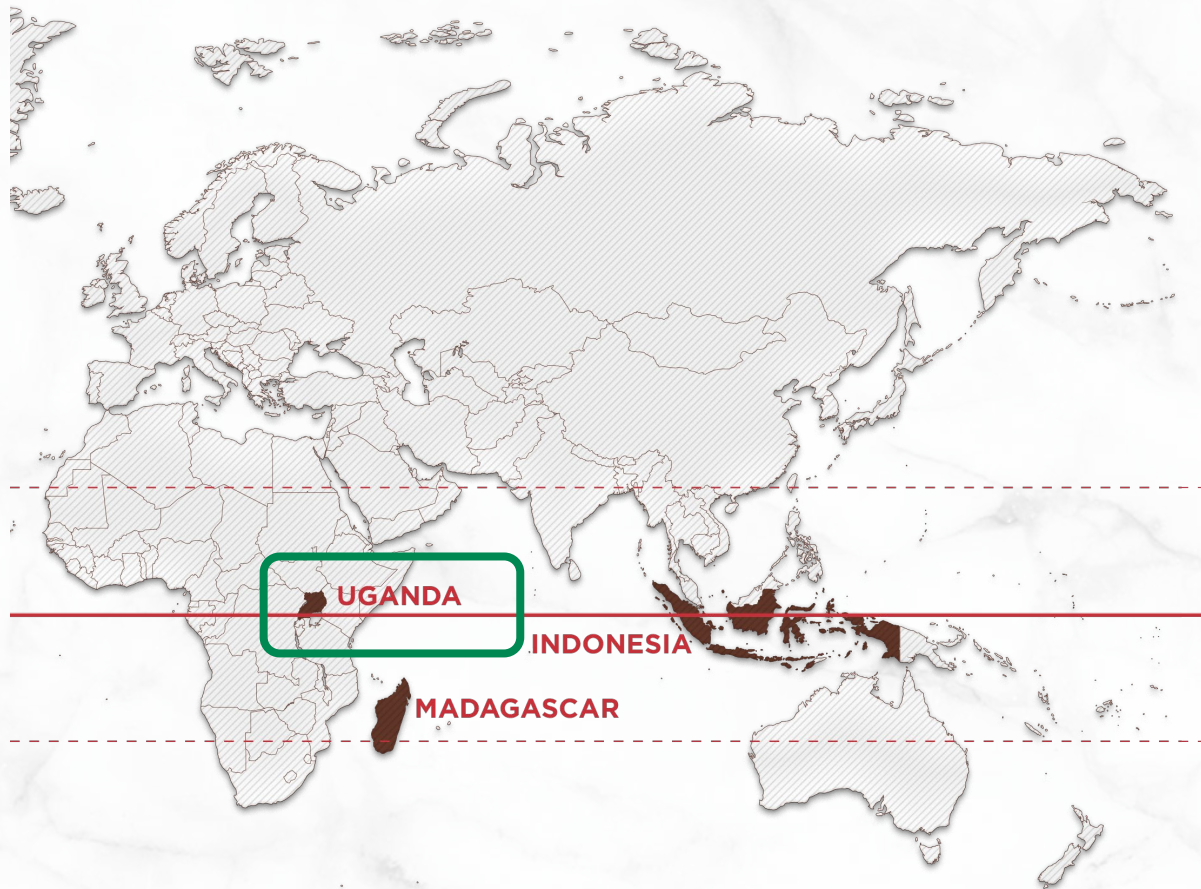


Indonesia Facts

- Production (250+ tons) annually
- Grown on a variety of islands (Flores, Bali, Java, Sulawesi, Sumatra)
- Harvesting & Curing almost year-round based on geographic spread of islands
- Historically lower quality beans
 - Over pollination of vines – shortens life span and adversely effects flavor development in the bean
 - Harvesting field all at once rather that harvesting as beans fully ripen
 - Various curing methods although most have now moved to sun curing
- Farms typically family-owned – larger than Madagascar but many plant multiple crops or add additional revenue streams to the farms.

VANILLA GROWING REGIONS

Uganda



Uganda Facts

- First introduced vanilla in 1940s
- Production (80-120 tons) and growing
- Grown in over 30 districts of Uganda often as an intercrop with coffee, bananas and cocoa.
- Two crops per year (Major-July/Minor-January)
- Curing process is very similar to Madagascar
- Government providing support and help to the industry trying to grow production.
- VINES project, following slide, strengthening whole internal supply chain from farmers through to exporters.

VANILLA GROWING REGIONS

UGANDA



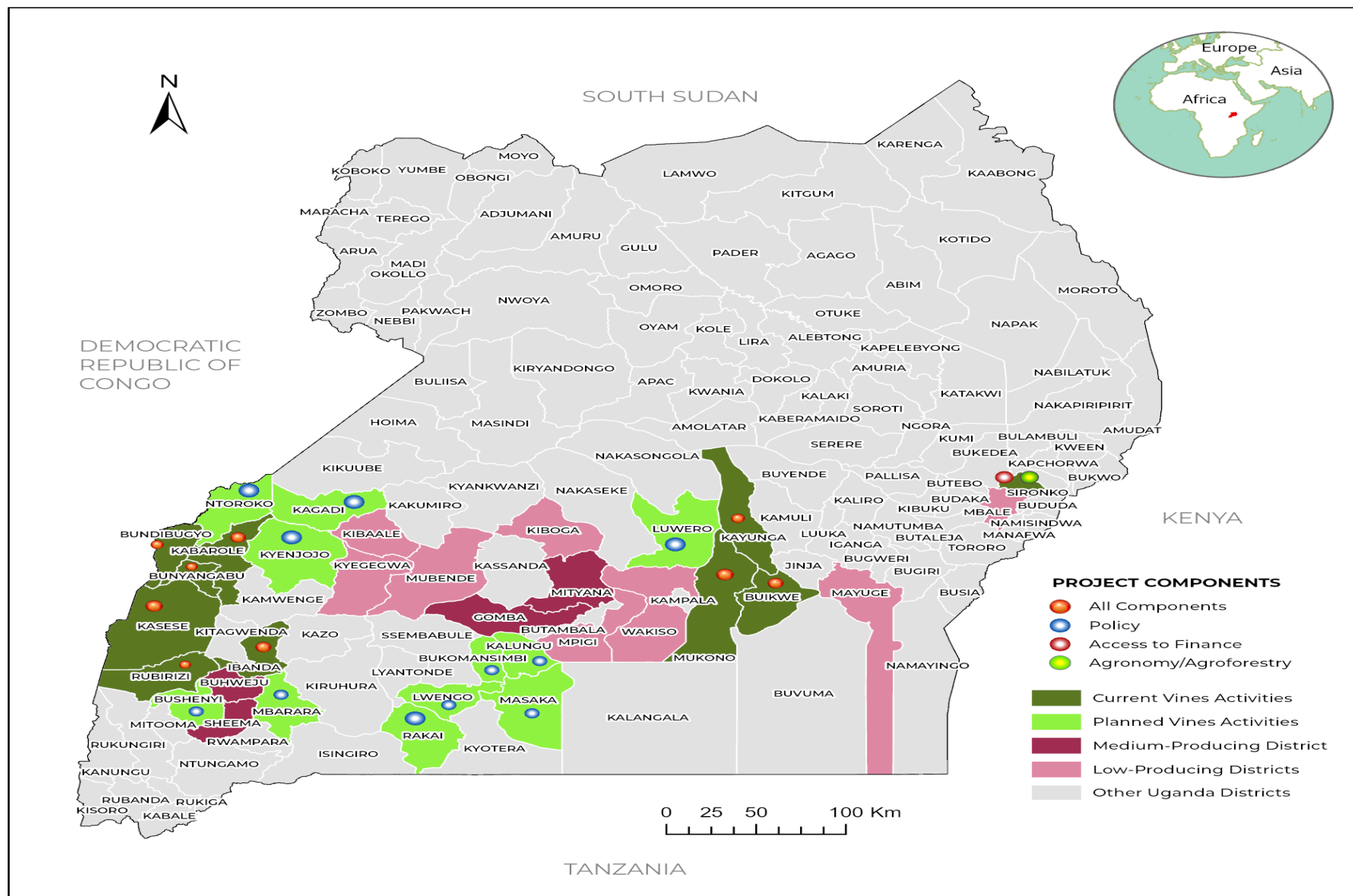
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VINES Vanilla Project in Uganda

“The VINES Project, implemented by CRS Uganda, is a five-year project that will make Uganda the world’s next leading supplier of high-quality vanilla. VINES will leverage the expertise of CRS and its partners to enhance the production of safe, pure vanilla and develop sustainable market links with US vanilla companies”

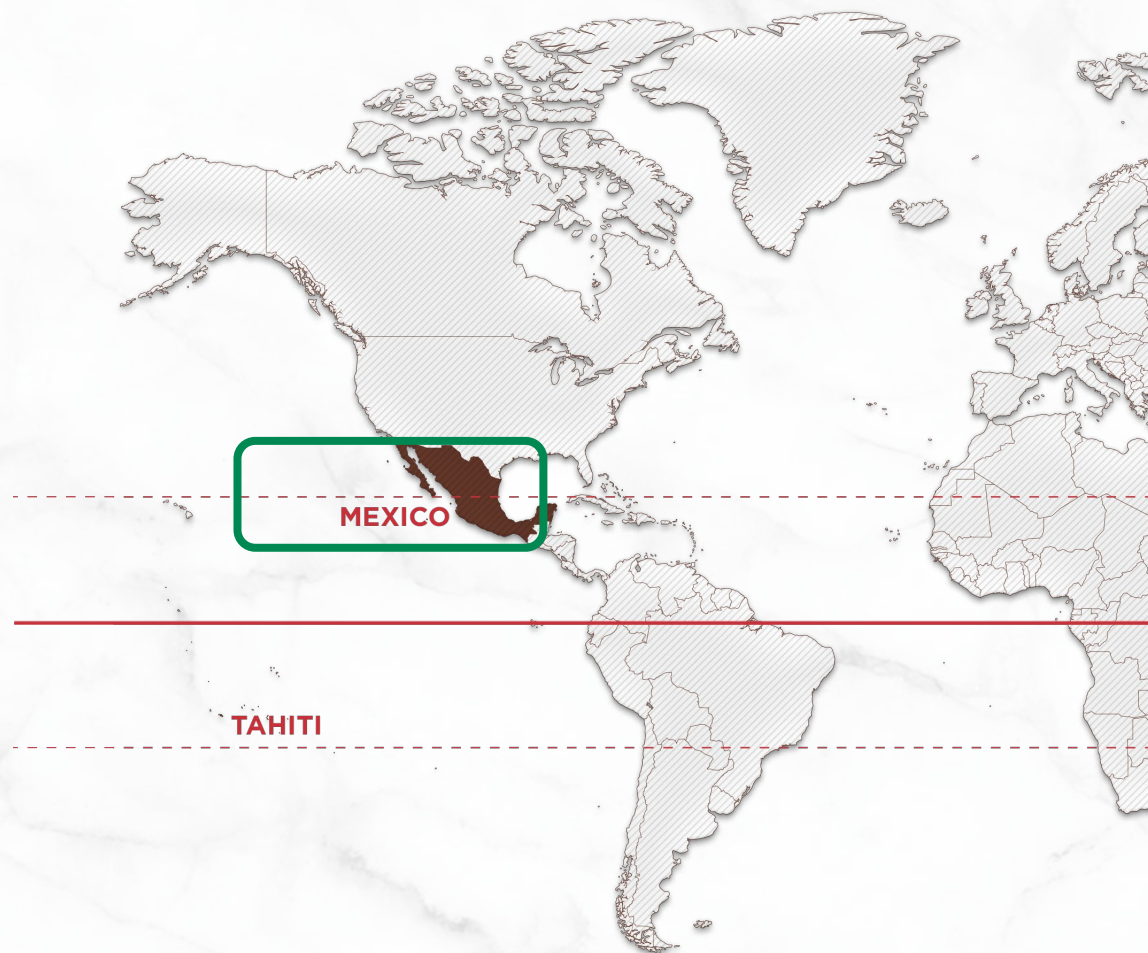
Project is administered by USDA and CRS (Catholic Relief Services). The Sustainable Vanilla Initiative (SVI) is involved along with VANEX, the Ugandan exporters association

Designed to strengthen the whole vanilla process from planting to curing to storage to marketing to provide a sustainable market for Ugandan vanilla farmers



VANILLA GROWING REGIONS

Mexico



Mexico Facts

- Production (less than 20 tons)
- Birthplace of vanilla
- Vanilla is produced in the states of Veracruz, San Luis Potosi, Puebla, Campeche, Chiapas, Quintana Roo, Hidalgo, Yucatan and Oaxaca
- Varying quality, small production
- Climate changes having effect on where vanilla is being grown. Production moving South from original area of Papantla.
- Melipone bee may be making comeback – original pollinator.
- Extracts made in Mexico have issues with adulteration

GROWING REGIONS OF VANILLA

Tahiti (including French Polynesia Islands)



Tahiti Facts

- Different genus (*Vanilla Tahitensis Moore*), producing large, plump beans
- Production (less than 10 tons)
- Distinct flavor profile, prized by pastry chefs
 - Cherry, fruity flavor

GROWING REGIONS OF VANILLA

Additional Regions



- **Papua New Guinea**
 - 80-100 tons annually?
- **Tanzania**
 - 15-25 tons annually
- **Comoros**
 - 50-60 tons annually
- **India**
- **Florida**
 - Potential labor cost issues
- **Hawaii**
 - Labor costs limit crop size to boutique size
- **Costa Rica**
- **Ecuador**
- **Haiti**
- **Nicaragua**
- **Dominican Republic**
- **Samoa**
- **Cook Islands**



GLOBAL SOURCING CONCERNS

SOURCING CONCERNS

WORLDWIDE CONCERNS:

- Significant oversupply of vanilla beans in all growing regions, except Tahiti, worldwide.
- When will demand start to rebound due to pricing, inflation, re-formulations etc.?
- When will companies properly label vanilla products?
- How will farmers react to 2-3 years of low demand? Will vanilla vines be ripped out and replaced with other cash crops, especially growing regions other than Madagascar?
- How can the vanilla industry reduce the reliance on Madagascar as a supplier and help grow alternative regions?
- How can extreme swings in pricing be limited or prevented in future?

MADAGASCAR CONCERNS:

- WEATHER!!!!
- Recent liberalization of vanilla market pricing and approved exporter list by Madagascar government after years of artificially high minimum export prices set by the government and limits to the number of exporters.
- Presidential elections originally scheduled for November 9th which are now scheduled to occur November 16th. If no candidate receives more than 50% of votes, then runoff is scheduled to occur December 22nd. How will this delay affect any potential government regulations? How much will government be involved? Political stability?
- To date, Approved Exporters Licenses have yet to be issued. Official opening, shipping, date for 2023 harvest yet to be announced. Usually, 90 days after opening of harvest.
- Farmers less likely to tear up vines as vanilla is too ingrained in culture. Experienced these swings in the past.

SOURCING CONCERNS

MADAGASCAR CONCERNS CONT.:

- Lack of infrastructure makes in country travel and transport difficult

INDONESIA CONCERNS:

- Production spread out over numerous islands. Transport difficult.
- Traditionally cured over wood fires or propane heaters. Have migrated to more of a sun curing process. Tendency to pick crop all at once. Averages quality down
- Tendency to over-pollinate vines. Vine lifespan shorter – on average 4-6 years
- History of pricing below Madagascar pricing

• UGANDA CONCERNS:

- Landlocked makes transport difficult. Limited infra-structure to main vanilla producing regions.
- Market dominated in past by 3 major exporters. Newer exporters still learning.
- New farmers and exporters need knowledge on whole vanilla process, especially curing – VINES project.
- Government involvement increasing around regulations, strengthening the market
- Will farmers be patient or will they rip out vines and replace with a a different cash crop. Has history of acting in such a manner, early 2000's
- How low in pricing will Ugandan farmers be willing to go?

SOURCING CONCERNS

- **MEXICO CONCERNS:**

- Small, very fragmented market.
- Competitive pricing issues as they have higher standard of living costs than the other growing regions
- Limited exporters to work with.

- **TAHITI CONCERNS:**

- Very small market
- Very limited number of exporters
- Very expensive in pricing

- **PAPUA NEW GUINEA CONCERNS:**

- Produces both Planifolia and Tahitensis.
- Number of beans smuggled across Indonesian border and sold as Indonesian beans
- Limited number of exporters
- Availability of consistent quality beans needs to improve

- **TANZANIA, COMORES & OTHER REGIONS**

- How long will farmers stay interested in growing vanilla beans?



CONSUMER TRENDS DATA & VANILLA APPLICATIONS

Macro Consumer Trends

Consumers Seek Uncompromising Food Experiences

Tastes Good + Good For Me + Good For Planet



Functional Benefits

Trending Benefits:

- Brain Health
- Immunity
- Digestive Health
- Low/No Sugar

Novel Functional Ingredients With Familiar Flavors

- Ancient grains With Vanilla

Natural / Organic

Plant-Based:

- Protein
- Animal Free

Natural Sweeteners

Non-Sugar Sweeteners

No Artificial Ingredients



Sustainable / Environment

Ingredient Sourcing

Carbon Footprint

Employee Welfare

Ingredient Restrictions

Sources:

Bell Institute of Health & Nutrition 1/12/23
Informa Markets & New Hope Network 2023¹⁷
New Hope 2023 Trends & Innovations

CONSUMER TRENDS



- **Source: Key Trends in Food, Nutrition & Health 2023 (New Nutrition Business)**
 - **Commitment to Sustainability**
 - Packaging is the first way consumers see a company’s commitment to sustainability and it may be the most important. Recyclable Packaging & Animal Welfare are the most important features of sustainability that consumers care about.
 - **Fewer carbs and fewer calories: trim the volume**
 - Snackable mini versions can offer an indulgent treat while reducing portion sizes
 - **Good Fats**
 - Many consumers are willing to embrace a higher fat content if it comes from a healthy fat source – coconut, avocado etc.
 - Silk has begun producing plant-based creamers using coconut cream and coconut oil “So Rich and creamy, you won’t miss dairy”
 - **Plant Based** - One of the biggest long term growth trends offers many paths to success.
 - Peekaboo ice cream was created to make everyone’s favorite ice cream a little more nutritious by providing an adequate serving of vegetables to the mix while still maintaining the creamy texture of traditional ice cream
 - Danone’s So Delicious yogurt brand is sold in the US. Uses coconut alternative rather than traditional dairy
 - **Fewer and Simpler Ingredients**
 - Consumers are seeking “real food” and avoiding ultra processed foods.
 - Haagen-Dazs Five Vanilla bean Ice Cream: ingredients are milk, cream, sugar, eggs & vanilla bean

Refrigerated Category Trends

Category Dynamics For Innovation Opportunities

- ❑ **Desirable Category Dynamics:**
 - ❑ Sales Growth
 - ❑ Low Share From Private Label
 - ❑ Not Dominated By Top Brands
- ❑ **Frozen Yogurt & Ice Creams (Dairy & Plant-Based) Have Been Declining**
- ❑ **Categories With Positive Innovation Dynamics:**
 - ❑ Refrigerated Yogurts: Traditional, Drinkable, & Plant-Based
 - ❑ Frozen Novelties & Desserts
 - ❑ Breakfast Pastries: Waffles, Pancakes

Subcategory	Desirability			Competitive Intensity	
	Category Sales (Latest 52wks)	Category Growth (Latest 52wks vs 2Y)	Category Growth %	\$ Share Of Top 2 Brands	\$ Share of Private Label
RF YOGURT	\$ 5,907,104,080	\$ 905,971,795	15%	37.2%	9.6%
FZ NOVELTIES	\$ 5,674,901,322	\$ 558,865,048	10%	21.0%	12.8%
RF YOGURT DRINKABLE	\$ 1,222,746,343	\$ 333,554,864	27%	43.2%	0.6%
FZ PIES & OTHER DESSERTS	\$ 2,027,562,589	\$ 139,368,279	7%	30.1%	12.7%
FZ WAFFLES	\$ 540,650,676	\$ 70,768,865	13%	81.0%	12.9%
RF PLANT BASED YOGURT	\$ 306,503,232	\$ 21,133,056	7%	63.5%	1.5%
FZ PANCAKES	\$ 62,446,519	\$ 4,573,353	7%	60.1%	14.6%
FZ YOGURT	\$ 44,193,572	\$ (11,823,842)	-27%	76.8%	47.8%
FZ PLANT BASED ICE CREAM	\$ 205,951,897	\$ (52,612,623)	-26%	59.3%	5.3%
FZ ICE CREAM	\$ 5,082,445,086	\$ (217,067,905)	-4%	31.3%	20.7%

Source: SPINS Natural, MULO, Conv L52wks 5/21/23

DAIRY TRENDS



- **Source: Circana Dairy15 Overview 52 weeks end 09/10/2023**
 - Ice Cream/Sherbet has seen YOY growth for 6 straight quarters
 - Frozen novelties has seen YOY growth for 19 straight quarters.
 - Growth is softening in 2023 and seems to be returning to 2019 pre-pandemic trends
 - **Top growing claims in dairy:**
 - Lactose Free: growth of 14.7%
 - No/Low Trans Fat: growth of 15%
 - No/Low/Less sugar: growth of 13%
 - **What to expect for dairy:**
 - Consumer behavior shifts to buying value sizes but also smaller sizes with lower absolute price points.
 - Brands can win with effective differentiation, innovation, clear benefit/claims communication.

Vanilla Is A Versatile Ingredient

Dry & Liquid Formats Enable A Range Of Applications



Vanilla Is The Solution For Multiple Flavor Needs:

- ✓ **Hero Flavor:** *Most Popular Flavor In The World*
- ✓ **Enhancer:** *Amplifies Subtle Flavors*
- ✓ **Masker:** *Overcomes Undesirable Flavors*

Work With Your Vanilla Supplier To Find What Works For Your Situation....

NIELSEN·MASSEY®

FINE VANILLAS & FLAVORS

Craig Nielsen

VP Sustainability & Vanilla Bean Sourcing

Phone: 847-578-1550

Email: craign@nielsenmassey.com

Website: NielsenMassey.com



NIELSEN-MASSEY VANILLAS INC.
1550 Shields Drive
Waukegan, Illinois USA 60085

