SOURCING REPORT

2023

DANDELION CHOCOLATE 2600 16TH STREET SAN FRANCISCO, CA 94103 UNITED STATES
DANDELIONCHOCOLATE.COM

THE PURPOSE OF THIS REPORT

Every chocolate bar we make begins on a farm somewhere between 20 degrees north and 20 degrees south of the equator, thousands of miles from our factories in San Francisco and Tokyo. In this zone, more than 90 percent of the world's cocoa production takes place on small farms, where income is generally subject to both volatile world-market whims, and the vagaries of farming in a changing climate. Historically, it's been difficult for consumers to view the supply chain and the conditions surrounding cocoa production.

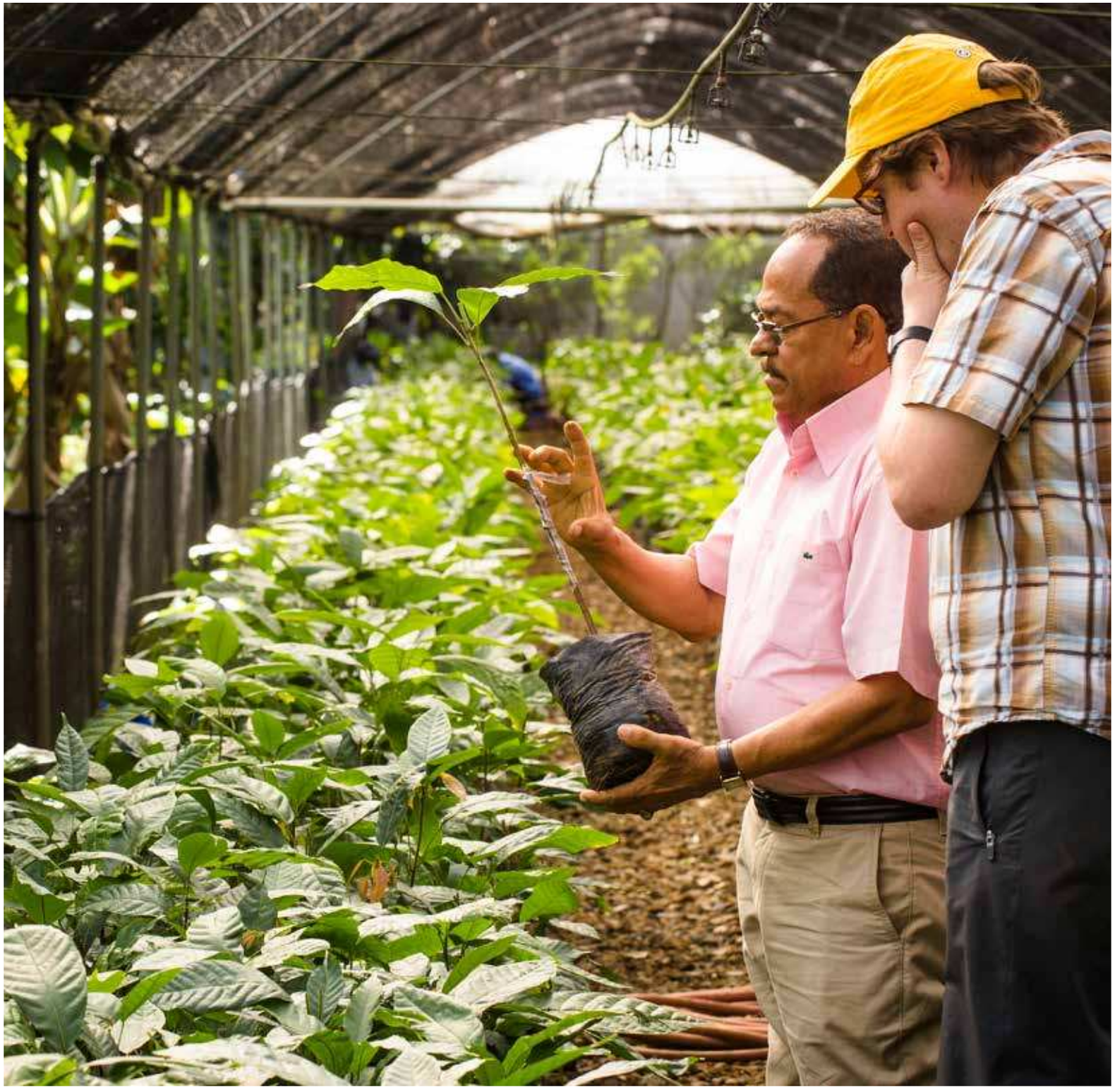
As a craft chocolate maker, we are part of a small but growing movement that seeks to make chocolate whose origins are distinct, clear, and sustainable. The following report functions as a platform to connect our producers and their practices with anyone interested in learning about where cocoa is sourced. If you buy our chocolate, you might be curious how much money reaches cocoa producers on the other end of the supply chain. If you're a producer, you may be interested in how other producers ferment, dry, or cultivate their cacao. We believe practicing transparency increases accountability, fairness, responsible stewardship, and best practices across the supply chain. We hope the information included here will serve that mission.

It's challenging to describe our relationships through metrics, and to capture cocoa supply-chain economics solely with data. In this report, we've done our best to clarify our philosophy and the value chain within which we work. People often ask us how much money makes it to the farmers; and because we buy from cooperatives, individuals, single estates, and through import companies, determining that number is complex. The amount we pay per metric tonne of beans is called the "landed cost," which includes the price paid to the producer, estate, fermentary, or company from whom we purchase the beans, as well as fees for anyone hired to import, export, or transport beans to our local storage location. The landed cost does not equal the "farm gate," which is the amount received by the person who grew the cacao. Right now, this accounting approach is the best we have, and we hope to find a more thorough way to break down costs in the future.

Our report details how each producer ferments, dries, and transports their product to us. It also shares how much cocoa we've purchased from each producer to date, and the amount we paid for that cocoa. In the end, everyone from the producers we work with to the customers who buy our chocolate is an integral part of the cocoa supply chain. Our aim here is to facilitate information flow between parties, and to empower us all to ask critical questions. Our industry is currently working to develop universal grading standards and a common lexicon to help chocolate makers and producers align practices. Clear communication will drive our industry to achieve common goals, including economic empowerment in developing communities, fair pay, and delivering the best chocolate we are able to produce.

OUR PHILOSOPHY

We strive to work directly with the producers who grow, ferment, and dry the cocoa we buy. We travel to origins as frequently as possible to learn about our producers' best practices, exchange feedback, and make sure that high standards of quality and sustainability are met. We pay a premium far above the fixed world-market price, and aim to strengthen our relationships year after year in order to maintain our collective commitment to sharing the best, most distinctive cocoa with you. We seek beans with good, consistent flavor, and partners with whom we are excited to work. We are happy to use intermediaries, as long as they add value and are paid fairly for the work they do, and as long as their payment does not come out of producers' pockets. We believe that good business practices can help foster positive social, environmental, and economic change, and we are committed to increasing transparency in both our own process, and across the supply chain.



A NOTE FROM GREG & RON

Welcome to another sourcing report! 2023 brought change for Dandelion, as well as for the industry at large. On the Dandelion side, we began a shift back to our roots, resuming production of smaller batches at our Valencia Street facility. In the world at large, 2023 saw a rise in cocoa prices, and the implementation of European Union regulations around deforestation-free products. It was a big year, and we're keen to share all the details.

Dandelion Chocolate has three factories: our original space on Valencia Street in San Francisco; our second factory in Kuramae, Tokyo; and our final and largest factory on 16th Street in San Francisco. Valencia Street and Kuramae both use stone grinders, or melangers, to make chocolate, whereas our larger factory on 16th Street uses ball mills and conches. Over the course of the pandemic, we shut down production at Valencia, as we weren't able to support operations at two S.F. factories with the team members we had.

Our larger and smaller facilities not only make chocolate with different equipment, but allow for a different approach to batch sizes. At 16th Street it's important to make the same origin over the course of several weeks (as it takes time to switch to a new origin), whereas Valencia Street is much more nimble, allowing us to make extra-small batches with interesting beans we've found. In 2023, we were finally able to restaff our Valencia Street facility and start making chocolate there again. This means that our Sourcing team is able to seek out interesting beans and procure them to make some unique, small-production bars. The first bar we made at the re-opened Valencia space was our Mililani, Hawai'i bar, made from a micro-lot of 300 kilograms of beans we purchased from Green Farms Hawaii on O'ahu. We hope you'll enjoy our increased variety of bars in the coming months and years!

The cocoa industry began transforming in 2023, as production in Côte d'Ivoire and Ghana decreased significantly. Because those two countries make more than 70 percent of the cocoa in the world, their lower production has caused large ripple effects. When supply is down, the price goes up. This is good news for the farmers who do have cocoa, as depending on where they live, they might receive more money for their work.

As you can see from our graph (page 19), the world average cocoa price rose substantially in 2023 (and continues to go up). Côte d'Ivoire and Ghana set the farm gate price annually, so heightened prices don't reach their farmers' pockets as quickly as in other countries. For Dandelion, you can see what happened to our purchase prices: They increased overall, but not by much. Because Dandelion already typically pays higher than world-market rates, the global price increase didn't affect us severely. As 2024 rolls along, we expect to see much higher prices in the world market, and will be mindful of how that affects farmers globally.

While cocoa production dropped worldwide in 2023, general awareness of the environmental impact of cocoa increased. The E.U. passed legislation requiring that seven key commodities (including cocoa), as well as any products derived from them, be proven deforestation-free in order to be brought into the E.U. While we all likely want less deforestation, the question is how the new requirement will be implemented, and how it will affect farmers. While the farmers Dandelion works with do not remove forest to grow their cacao, trying to prove that is a time-consuming and expensive challenge. The E.U. Deforestation Regulation (EUDR) goes into effect at the end of 2024, and farmers, producers, and importers are working hard to figure out how to comply with the regulation. It will be interesting to see how compliance plays out.

Lastly, as you'll see in this report, we partnered with a few new producers in 2023. Our growth as a business, and our reopening of our Valencia Street production space, have enabled this expansion, and we're eager to share the stories and flavors of new origins with you. 2023 was a year of change, and 2024 promises to be exciting. We hope you enjoy this sourcing report, and find value in the information it provides about our work!

– Greg & Ron

CADMIUM & LEAD
(HEAVY METAL THUNDER)

Fun fact: Cadmium is a metal found in the Earth's crust; it naturally occurs in the soil as a result of volcanic emissions that have taken place over thousands of years. Trees and plants pull elements and compounds from the soil into their trunks, leaves, fruits, and seeds. Cadmium is no exception, and can be found in high concentrations in fruits and vegetables — particularly root vegetables, and leafy greens such as spinach and kale. Cereals, rice, nuts, pulses, soybeans, shellfish, organ meats, and other foods also have naturally high concentrations of cadmium.

But wait, what does this have to do with chocolate?

Cadmium and lead became a hot topic at the end of 2022, when a *Consumer Reports* article discussed cadmium and lead in chocolate — so we thought it was worth diving into some detail for the interested reader.

There are no U.S. federal regulations or guidelines on dietary exposure to cadmium. The sole U.S. regulation regarding cadmium and lead in chocolate, that we know of, is California's Proposition 65. Prop 65 was created in 1986 as a way to give consumers recourse if businesses exposed them to dangerous compounds. *Prop 65 was designed as a right-to-know law, and not a determinant of safety.*

Hundreds of compounds are listed under Prop 65, and limits for each were set based on the No Observable Effect Level (NOEL) — as determined, per the California Office of Environmental Health Hazard Assessment (OEHHA), "... based on the most sensitive study deemed to be of sufficient quality (22 CCR Section 12803(a)(4))." The NOEL level (an amount that would cause no harm) was then divided by 1000. Alternatively, a study could indicate the Lowest Observable Effect Level (LOEL), and that number would be divided by 10, and then divided again by 1000. The resulting micro-quantities are considered a Maximum Allowable Dose Level (MADL). To be clear, *the MADL is either 1000 times below what is found to cause no harm, or 10,000 times lower than what is shown to cause harm*. Prop 65 does not state that anything beyond the MADL is dangerous — just that anything beyond the MADL requires a warning.

As a side note, while the vast majority of our products are under Prop 65 limits, we provide warning signs at our points of sale, both in person and online, to ensure that our guests are informed, and that we are compliant with California law.

Interestingly, Prop 65 provides an exemption for any compounds that are "naturally occurring" — that is, not potentially resulting from processing, or from metal packaging. This is why there are no warnings printed on foods such as spring-mix salad (which contains much higher levels of both cadmium and lead, per serving, than chocolate), or sunflower seeds (which have similarly high levels). Since these products are not "manufactured," they fall under the exemption.

Over time, several organizations have tested various products using the Prop 65 guidelines, and based on what they've found, have initiated lawsuits. As You Sow is one such organization that focuses on chocolate. They tested bars from multiple makers, and detected differing levels of cadmium and lead. Their 2018 case against nine manufacturers was brought together in a summary judgment that decided three points:

1. A number of chocolate makers needed to pay settlement money to As You Sow (this is their income stream).

2. As You Sow was required to conduct and publish a study determining where and how cadmium and lead come to exist in chocolate, and whether the two metals are present in cocoa beans.

COVERED PRODUCT	CADMIUM CONCENTRATION	LEAD CONCENTRATION
CHOCOLATE PRODUCTS WITH UP TO 65% COCOA CONTENT	0.40 PPM	0.10 PPM
CHOCOLATE PRODUCTS WITH 65% TO 95% COCOA CONTENT	0.45 PPM	0.15 PPM
CHOCOLATE PRODUCTS WITH GREATER THAN 95% COCOA CONTENT	0.96 PPM	0.225 PPM

3. New, more practical limits were agreed upon for cadmium and lead levels in chocolate. The minimum lead and cadmium concentrations necessitating Prop 65 warnings are shown above, in parts per million (ppm).

As You Sow published their report in August of 2022. Their document outlines that cadmium is naturally occurring, coming into chocolate through the soil in which cacao trees grow; and that lead comes into cocoa beans via environmental exposure.

At Dandelion, we test for both microbiological contaminants and heavy metals in every new delivery of beans: We have a 10-percent representative lot sample drawn by an independent company and delivered to Anresco Laboratory in San Francisco, for testing. Currently we will reject any beans that test positive for E. coli, salmonella, and / or listeria, and we monitor levels of cadmium, lead, arsenic, and mercury.

Additionally, we test all of our finished chocolate for cadmium and lead to ensure that levels are extremely low, and we compare our results to the levels set by the summary judgment. We've found traces of cadmium in nearly all of our chocolate, though the only bars that have shown levels requiring a Prop 65 warning are our bars made of beans from Ecuador.

Ecuador tends to have higher soil levels of cadmium than other origins, but we don't want to abandon the country's cocoa farmers and producers, with whom we've worked for years; hence we warn consumers of the general risk.

As noted above, lead in cocoa is less well understood than cadmium; it's assumed to come from the environment. None of our bars contains significant levels of lead: Of the 19 bars we tested recently, 15 of them showed no lead at all, and the other four tested only slightly above the detection threshold (around 0.01 ppm) and an order of magnitude *below* the Prop 65 limit of 0.15 ppm (shown above).

We were curious about cadmium and lead levels in other foods, so we tested a wide variety of products from local grocery stores, and cadmium and lead were detected in almost all of them. This was by no means a scientific study, but we were curious how prevalent cadmium and lead are generally, and the answer is that there seem to be low levels of both metals just about everywhere.

We believe it's always a good idea to understand the benefits and potential risks of foods that we eat. In assessing risks that any food might pose, we encourage you to consider your current health, as well as the food's source, and the quantity consumed. According to the Centers for Disease Control, most orally ingested cadmium passes through the

gastrointestinal tract unchanged, as most healthy individuals absorb only about 2.5 percent of cadmium ingested in food.

A European Union study on dietary exposure to cadmium found that grains and grain products cause the largest degree of exposure to cadmium (26.9 percent), followed by vegetables and vegetable products (16.0 percent), and starchy roots and tubers (13.2 percent). Chocolate and chocolate products accounted for only 4.3 percent of the dietary exposure to cadmium. It also found that often it's not foods with the highest cadmium levels, but foods consumed in larger quantities, that have the greatest impact on dietary exposure to cadmium.

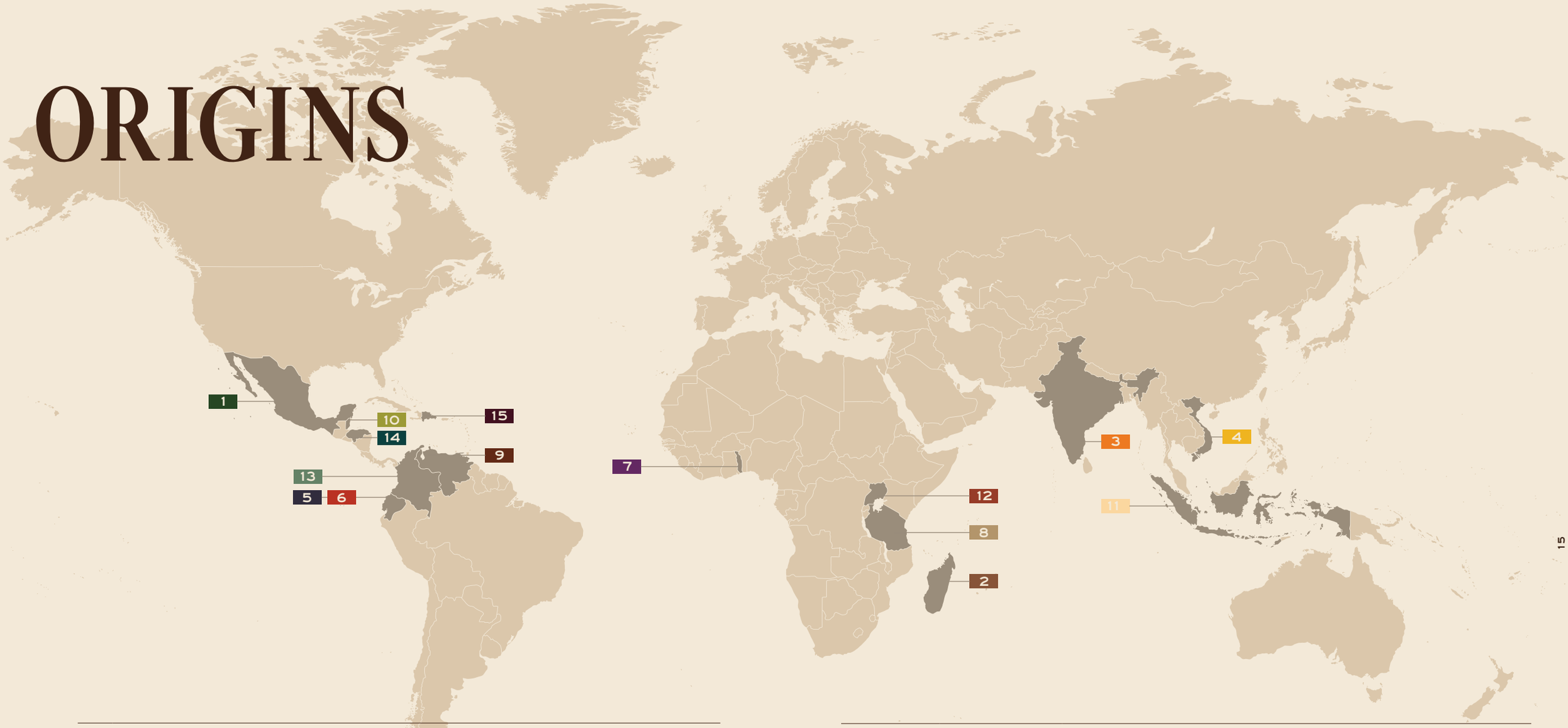
If cadmium is of specific concern, we suggest avoiding our chocolate bars made from Ecuadorian cocoa, as chocolate produced from those beans tends to test higher for cadmium than other cocoa origins. When it comes to lead, based on the data, we believe that none of our chocolate is cause for concern.

We hope this information about cadmium and lead in general, as well as cadmium and lead in chocolate, proves useful. The natural world is fascinating and complex, and if you examine one component, it can seem surprising; we find that the context around cadmium and lead in food has helped us understand our risk factors, and hope you agree.

ORIGIN	HARVEST	PERCENTAGE	CADMIUM (PPM)	LEAD (PPM)
CAHABÓN, GUATEMALA	2021	70%	0.239 PPM	NONE DETECTED
CAMINO VERDE, ECUADOR	2023	70%	0.664 PPM	NONE DETECTED
CAMINO VERDE, ECUADOR	2023	100%	0.55 PPM	NONE DETECTED
HACIENDA AZUL, COSTA RICA	2022	70%	NONE DETECTED	NONE DETECTED
COSTA ESMERALDAS, ECUADOR	2020	70%	1.226 PPM	NONE DETECTED
COSTA ESMERALDAS, ECUADOR	2020	85%	1.561 PPM	NONE DETECTED
COSTA ESMERALDAS, ECUADOR	2022	70%	1.195 PPM	NONE DETECTED
SEMULIKI FOREST, UGANDA	2022	70%	0.323 PPM	0.016 PPM
ANAMALAI, INDIA	2022	70%	0.053 PPM	NONE DETECTED
KOKOA KAMILI, TANZANIA	2019	70%	0.022 PPM	0.052 PPM
KOKOA KAMILI, TANZANIA	2021	70%	0.065 PPM	0.017 PPM
MILILANI, HAWAI'I, U.S.A.	2020	70%	0.981 PPM	NONE DETECTED
AMBANJA, MADAGASCAR	2017	70%	0.177 PPM	NONE DETECTED
AMBANJA, MADAGASCAR	2022	70%	0.173 PPM	NONE DETECTED
MAYA MOUNTAIN, BELIZE	2022	70%	0.238 PPM	NONE DETECTED
MAYA MOUNTAIN, BELIZE	2022	85%	0.279 PPM	0.014 PPM
TUMACO, COLOMBIA	2022	70%	0.264 PPM	NONE DETECTED
TUMACO, COLOMBIA	2023	70%	0.258 PPM	NONE DETECTED
ZORZAL COMUNITARIO, D.R.	2022	70%	0.137 PPM	NONE DETECTED

FOOD	CADMIUM (PPM)	LEAD (PPM)
SPRING-MIX SALAD	0.1 PPM	0.016 PPM
KALE	0.076 PPM	NONE DETECTED
TOMATO	NONE DETECTED	NONE DETECTED
CARROT	0.011 PPM	0.011 PPM
SWEET POTATO	NONE DETECTED	0.015 PPM
ORGANIC BROWN MUSHROOMS	NONE DETECTED	0.013 PPM
EXTRA-FIRM TOFU	0.017 PPM	NONE DETECTED
SUNFLOWER SEEDS	0.305 PPM	0.042 PPM
EXTRA-LONG-GRAIN WHITE RICE	0.015 PPM	0.014 PPM
ORGANIC BROWN JASMINE RICE	NONE DETECTED	0.015 PPM
STEEL-CUT INSTANT OATMEAL	0.054 PPM	0.011 PPM
FAST-FOOD FRIES	0.073 PPM	NONE DETECTED

ORIGINS



	ORIGIN & COUNTRY	REGION	SOURCE
01	AGUA ESCONDIDA, MEXICO	LA CHONTALPA	REVIVAL CACAO
02	AMBANJA, MADAGASCAR	SAMBIRANO VALLEY	BEJOFO ESTATE
03	ANAMALAI, INDIA	ANAMALAI	REGAL PLANTATIONS
04	BẾN TRE, VIETNAM	BẾN TRE	MAROU
05	CAMINO VERDE, ECUADOR	GUAYAS	CAMINO VERDE
06	COSTA ESMERALDAS, ECUADOR	ATACAMES	COSTA ESMERALDAS
07	KPALIMÉ, TOGO	PLATEAUX REGION	GEBANA
08	KOKOA KAMILI, TANZANIA	MOROGORO	KOKOA KAMILI
09	LUNA CLARA, VENEZUELA	CARABOBO PROVINCE	HACIENDA LUNA CLARA
10	MAYA MOUNTAIN, BELIZE	TOLEDO	MAYA MOUNTAIN CACAO, LTD.
11	RANSIKI, INDONESIA	WEST PAPUA	BIJI KAKAO
12	SEMULIKI FOREST, UGANDA	SEMULIKI	LATITUDE TRADE COMPANY
13	TUMACO, COLOMBIA	NARIÑO	CACAO HUNTERS
14	WAMPU, HONDURAS	GRACIAS A DIOS	CACAO MISKITO
15	ZORZAL COMUNITARIO, DOMINICAN REPUBLIC	DUARTE	ZORZAL CACAO

YEARS PURCHASED	LAST VISIT DATE	LAST VISIT GROUP	ROAST PROFILE BY
2023	2024 UPCOMING	N/A	NATE
2012–2023	11.2015	GREG	ERIC
2017–2023	01.2024	RON	TREVOR
2018–2023	08.2018	GREG, RICHARD, BECCA, CYNTHIA, MARY, YUKI	RICHARD (U.S.A.) | YURI (JAPAN)
2013–2023	08.2018	GREG, KAREN, RICHARD, MEGAN	ERIC
2016–2023	08.2018	GREG, KAREN, RICHARD, MEGAN	ERIC
2023	2024 UPCOMING	N/A	N/A
2014–2023	03.2024	GREG	NATE
2023	2024 UPCOMING	N/A	TREVOR
2013–2023	09.2023	RON	TREVOR (U.S.A.) | YURI (JAPAN)
2021–2023	03.2022	GREG	N/A
2022–2023	11.2023	GREG	TREVOR
2017–2023	04.2024	RON	ERIC (U.S.A.) | SENNA (JAPAN)
2017–2023	10.2018	GREG, CHIEKO	ERIC
2013–2023	10.2023	GREG	TREVOR (U.S.A.) | MARI (JAPAN)

THE NUMBERS

As the goal of this report is to provide as much information as possible, we believe the easiest way to do that is to list every shipment we receive. We hope this will give you insight into how the cocoa logistics of a company such as ours work.

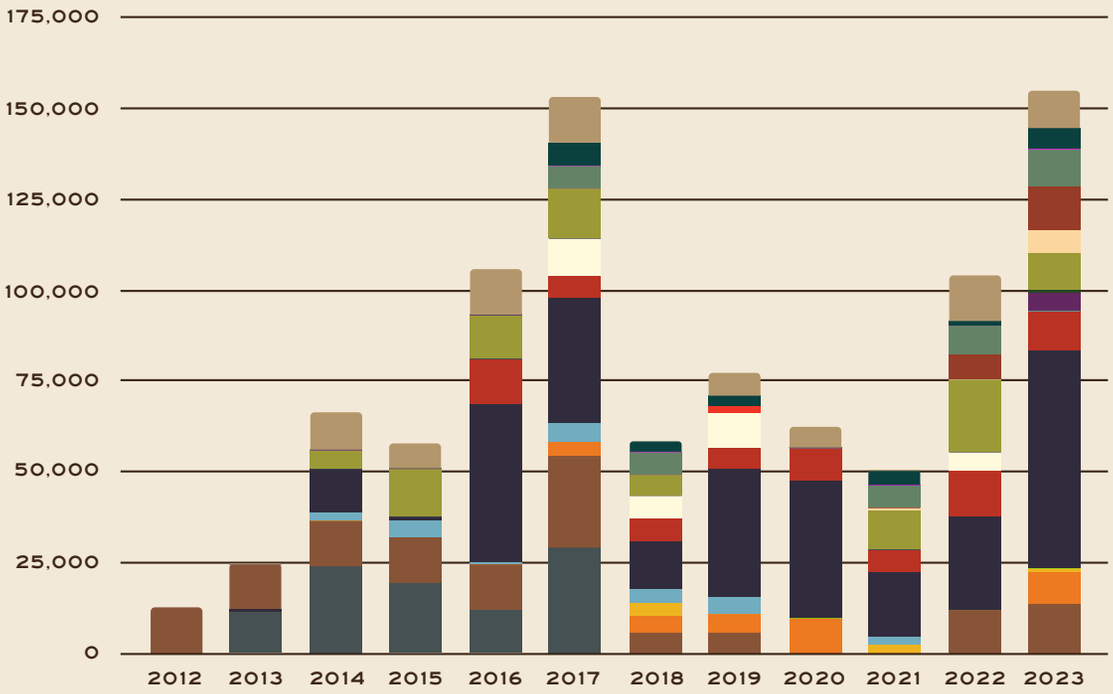
2023

DATE PURCHASED	ORIGIN	TOTAL WEIGHT (KG)	TOTAL	PRICE (KG)
JAN 2023	CAMINO VERDE, ECUADOR	20,010	$162,081.00	$8.10
JAN 2023	RANSIKI, INDONESIA	6,000	$49,080.00	$8.18
JAN 2023	SEMULIKI FOREST, UGANDA	12,500	$82,875.00	$6.63
FEB 2023	BẾN TRE, VIETNAM	1,000	$9,860.00	$9.86
MAR 2023	LUNA CLARA, VENEZUELA	1,020	$8,843.40	$8.67
APR 2023	ANAMALAI, INDIA	8,370	$69,973.20	$8.36
APR 2023	ANAMALAI, INDIA (NUTMEG)	360	$4,089.60	$11.36
MAY 2023	AMBANJA, MADAGASCAR	13,000	$92,820.00	$7.14
MAY 2023	KOKOA KAMILI, TANZANIA	10,080	$66,124.80	$6.56
MAY 2023	KOKOA KAMILI, TANZANIA (CINNAMON)	360	$2,361.60	$6.56
JUN 2023	CAMINO VERDE, ECUADOR	20,010	$143,471.70	$7.17
JUN 2023	COSTA ESMERALDAS, ECUADOR	10,064	$97,721.44	$9.71
JUN 2023	COSTA ESMERALDAS, ECUADOR (EET-62 CLONE)	544	$5,733.76	$10.54
JUN 2023	TUMACO, COLOMBIA	10,000	$81,100.00	$8.11
JUL 2023	MAYA MOUNTAIN, BELIZE	9,735	$70,286.70	$7.22
JUL 2023	MAYA MOUNTAIN, BELIZE (ALLSPICE/PEPPER)	275	$3,135.00	$11.40
JUL 2023	ZORZAL COMUNITARIO, D.R.	10,010	$68,668.60	$6.86
AUG 2023	WAMPU, HONDURAS	5,500	$62,755.00	$11.41
OCT 2023	AGUA ESCONDIDA, MEXICO	1,000	$11,150.00	$11.15
NOV 2023	KPALIMÉ, TOGO	4,970	$35,137.90	$7.07
DEC 2023	CAMINO VERDE, ECUADOR	20,010	$167,683.80	$8.38
2023 TOTAL		164,818 KG	$1,294,952.50	

2023 AVERAGE PER KG $7.86

ANNUAL QUANTITY PURCHASED

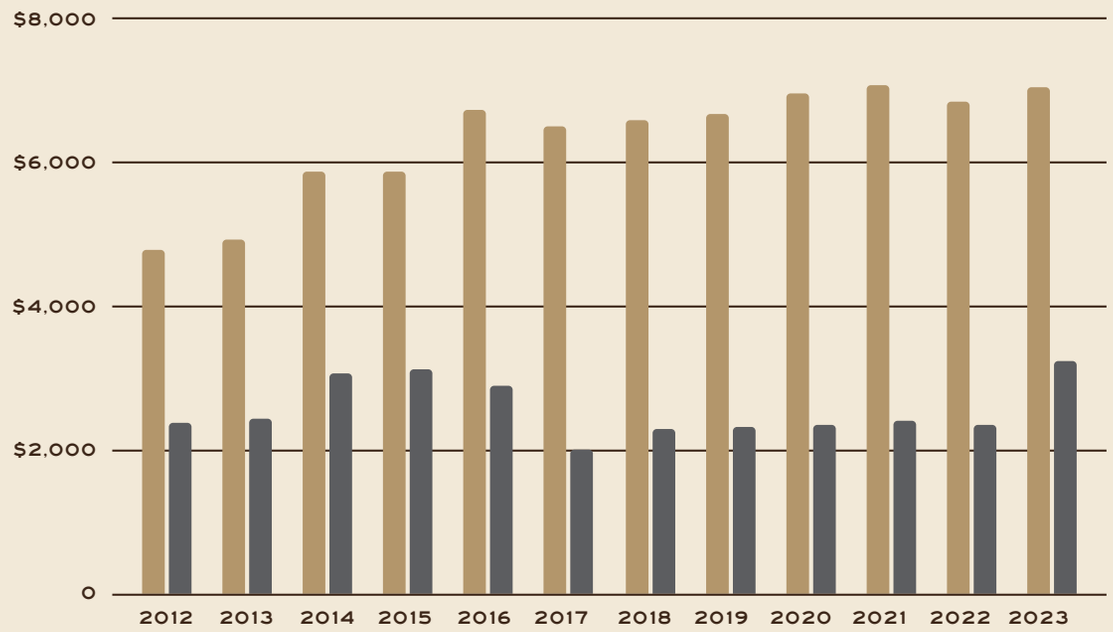
Now that we have been purchasing cocoa for over a decade, our data are interesting in aggregate. This graph shows all substantial purchases we've made; origins that we no longer use are lumped together, while current origins are broken out per year.



Agua Escondida, Mexico
Ambanja, Madagascar
Anamalai, India
Bến Tre, Vietnam
Cahabón, Guatemala
Camino Verde, Ecuador
Costa Esmeraldas, Ecuador
Hacienda Azul, Costa Rica
Kokoa Kamili, Tanzania
Kpalimé, Togo
Luna Clara, Venezuela
Maya Mountain, Belize
Mililani, Hawai'i, U.S.A.
Ransiki, Indonesia
Semuliki Forest, Uganda
Tumaco, Colombia
Vale Potumujú, Brazil
Wampu, Honduras
Zorzal, Dominican Republic
Discontinued Origins

AVERAGE PRICE PER TONNE

Price isn't everything, but we believe it is only fair to pay an appropriate amount for cocoa. Unless you work in cocoa, you might not follow market trends, but we thought it would be interesting to show the ups and downs of the average commodity price versus the average price we pay.



Average Dandelion Chocolate Price
Average World Price

	Fermentation	Drying	Logistics			
AGUA ESCONDIDA MEXICO	LINEAR BOXES	GAS ARTIFICIAL DRYING (1 DAY) & CEMENT PATIOS WITH MESH NETS	THE PÉREZ REYES FAMILY & SMALLHOLDER FARMERS GROW BEANS	REVIVAL CACAO BUYS, FERMENTS, & DRIES BEANS	EXPORT BY REVIVAL CACAO	IMPORT BY REVIVAL CACAO
AMBANJA MADAGASCAR	4-TIERED BOXES	RAISED WOODEN BEDS & CEMENT PATIOS	AKESSON'S ORGANIC ESTATE GROWS, FERMENTS, DRIES, & BLENDS BEANS		EXPORT BY AKESSON'S ORGANIC ESTATE	IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE
ANAMALAI INDIA	5-TIERED BOXES	RAISED MESH BEDS & CEMENT PATIOS	REGAL PLANTATIONS GROWS BEANS & BUYS PODS FROM SMALLHOLDER FARMERS	REGAL PLANTATIONS FERMENTS, DRIES, & BLENDS BEANS	EXPORT BY REGAL PLANTATIONS	IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE
BẾN TRE VIETNAM	LINEAR BOXES	RAISED MESH BEDS	SMALLHOLDER FARMERS GROW BEANS	TWO LOCAL FERMENTERS BUY, FERMENT, & DRY BEANS	MAROU BLENDS BEANS	EXPORT BY MAROU	IMPORT BY MERIDIAN CACAO
CAMINO VERDE ECUADOR	LINEAR BOXES	CEMENT PATIOS	SMALLHOLDER FARMERS GROW BEANS	CAMINO VERDE BUYS, FERMENTS, DRIES, & BLENDS BEANS	EXPORT BY CAMINO VERDE	IMPORT BY MERIDIAN CACAO
COSTA ESMERALDAS ECUADOR	5-TIERED BOXES	RAISED MESH BEDS & CEMENT PATIOS WITH GREENHOUSE	COSTA ESMERALDAS GROWS, FEREMENTS, DRIES, & BLENDS BEANS		EXPORT BY COSTA ESMERALDAS	IMPORT BY COSTA ESMERALDAS
KPALIMÉ TOGO	HEAP FERMENTATION WITH BANANA & PLANTAIN LEAVES	RAISED BAMBOO BEDS	SMALLHOLDER FARMERS GROW, FERMENT, & DRY BEANS	VISON+ CO-OP BUYS & BLENDS BEANS	EXPORT BY GEBANA	IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE
KOKOA KAMILI TANZANIA	3-TIERED BOXES	RAISED MESH BEDS	SMALLHOLDER FARMERS GROW BEANS	KOKOA KAMILI BUYS, FEREMENTS, DRIES, & BLENDS BEANS	EXPORT BY KOKOA KAMILI	IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE

	Fermentation	*Drying*	*Logistics*			
LUNA CLARA VENEZUELA	3-TIERED BOXES	CEMENT PATIOS WITH GREENHOUSE	HACIENDA LUNA CLARA GROWS BEANS & BUYS BEANS FROM LA FLOR DE MANTUANO CO-OP	HACIENDA LUNA CLARA FERMENTS, DRIES, & BLENDS BEANS	EXPORT BY HACIENDA LUNA CLARA	IMPORT BY HACIENDA LUNA CLARA
MAYA MOUNTAIN BELIZE	LINEAR BOXES	RAISED WOODEN BEDS & CEMENT PATIO WITH GREENHOUSE	SMALLHOLDER FARMERS GROW BEANS	MAYA MOUNTAIN CACAO BUYS, FEREMENTS, DRIES, & BLENDS BEANS	EXPORT BY MAYA MOUNTAIN CACAO	IMPORT BY UNCOMMON CACAO FOR DANDELION CHOCOLATE
RANSIKI INDONESIA	LINEAR BOXES	RAISED MESH BEDS WITH GREENHOUSE	EIBER SUTH CO-OP GROWS, FERMENTS, DRIES, & BLENDS BEANS		EXPORT BY BIJI KAKAO	IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE
SEMULIKI FOREST UGANDA	LINEAR BOXES	RAISED WOODEN BEDS & CEMENT PATIO WITH GREENHOUSE	SMALLHOLDER FARMERS GROW BEANS	LATTITUDE TRADE CO. BUYS, FEREMENTS, DRIES, & BLENDS BEANS	EXPORT BY LATITUDE TRADE CO.	IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE
TUMACO COLOMBIA	LINEAR BOXES	RAISED WOODEN BEDS WITH GREENHOUSE	SMALLHOLDER FARMERS GROW BEANS	MULTIPLE CO-OPS BUY, FERMENT, & DRY BEANS; CACAO HUNTERS BLENDS BEANS	EXPORT BY CACAO HUNTERS	IMPORT BY UNCOMMON CACAO FOR DANDELION CHOCOLATE
WAMPU HONDURAS	LINEAR BOXES	RAISED WOODEN BEDS WITH GREENHOUSE	SMALLHOLDER FARMERS GROW BEANS	CACAO MISKITO BUYS, FERMENTS, DRIES, & BLENDS BEANS	EXPORT BY BENEFICIO DE EXPORTACION DE OCCIDENTE (BEO)	IMPORT BY UNCOMMON CACAO FOR DANDELION CHOCOLATE
ZORZAL COMUNITARIO DOMINICAN REPUBLIC	4-TIERED BOXES	RAISED MESH BEDS & CEMENT PATIO WITH GREENHOUSE	SMALLHOLDER FARMERS GROW BEANS	ZORZAL CACAO BUYS, FEREMENTS, DRIES, & BLENDS BEANS	EXPORT BY CACAO DEL BOSQUE	IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE

AGUA ESCONDIDA, MEXICO

To say that we've been looking to buy cocoa from Mexico since Dandelion began isn't an exaggeration. Having opened our Valencia Street factory over 10 years ago in the middle of San Francisco's Mission District, it would seem obvious to craft a bar using beans from Mexico; however, our journey finally to source and buy beans has been long.

Cacao was domesticated in Mexico over four thousand years ago. Ancient civilizations such as the Mokaya, Olmecs, Mayans, and Aztecs elevated cacao to the center of their cultures and daily life. Today, the vast majority of Mexican cocoa is produced and consumed within Mexico. It's generally processed differently from in other places: Beans are not always fermented, but rather washed and dried. "Cacao lavado" has been the product of a traditional processing method in Mexico for thousands of years. Farmers crack open pods at the time of harvest, and extract and wash the wet beans to remove the cacao pulp; the beans are then dried in the sun. Because the cocoa isn't fermented like most other cocoa, it is generally considered unsuitable for making into the sort of chocolate bar you're used to eating, due to high bitterness and astringency. This unfermented cocoa does make excellent drinking chocolate, and there are hundreds of recipes, both regional and familial; you'll find chocolate drinks made with milk or water, served hot or cold, and enriched with varied ingredients such as masa, canela, vanilla bean (indigenous to Veracruz), cardamom, allspice, star anise, peanuts, almonds, and pecans.

In 2022 we became more determined than ever before to find a source of Mexican cocoa. Because most cacao grown in Mexico is consumed there, and Mexico imports even more cocoa from its neighboring countries, there's not a lot available for export. Additionally, because most Mexican cacao isn't fermented, finding a great source of well-fermented cocoa is more difficult than usual.

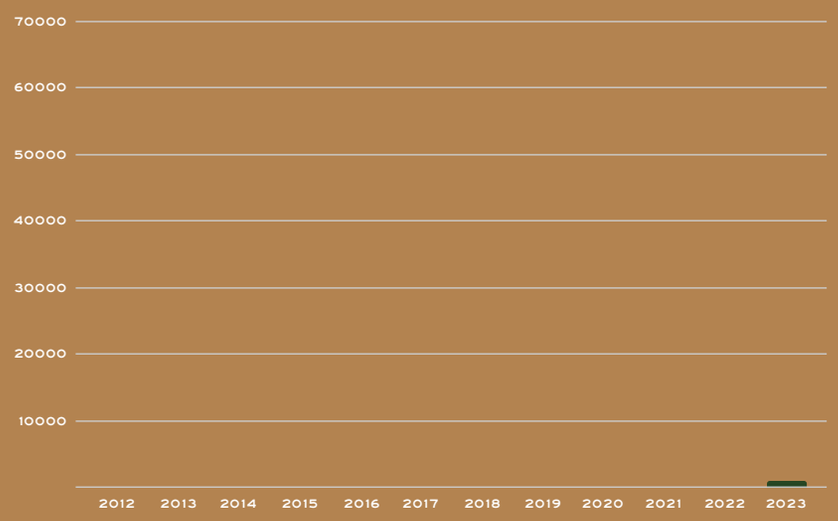
Eventually Ron reached out to our friends Enrique Pérez and Jorge Llanderal, two of the co-founders of Cuna de Piedra, a wonderful and innovative chocolate maker in Monterrey, Mexico. They were kind enough to put him in touch with Alejandro Zamorano, the owner of Revival Cacao, whose mission is to modernize Mexican cocoa for sale on the world market, and who supplies cocoa to Cuna de Piedra.

We immediately hit it off with Alejandro — he's driven to put Mexican cocoa on the world map, and works with smallholder farmers and fermenters in both Chiapas and Tabasco (where over 90 percent of Mexican cacao is grown). After trying several samples, we decided on cacao grown near Comalcalco, Tabasco, on a farm called Agua Escondida. The majority of this cacao is grown by Malaquías Pérez Reyes, and fermented by Revival Cacao's agronomic engineer, Carlos Vázquez Zambrano. Agua Escondida and Revival's operation includes several hundred cacao trees, multiple wooden fermentation boxes, a small team, and a lot of motivation to produce delicious cocoa. Recently the farm production has expanded to include other neighboring farmers, many of them relatives of Malaquías.

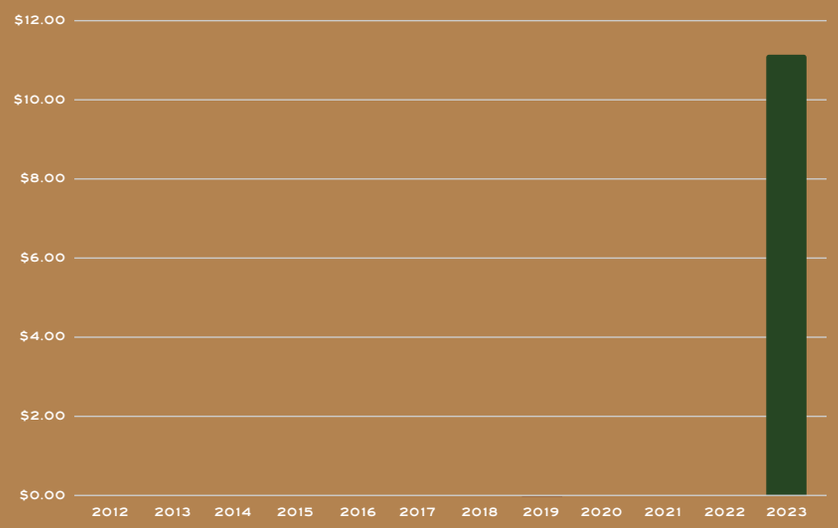
We're very pleased to work with such dedicated partners in Mexico, and can't wait for you to try chocolate made with these amazing beans!

AGUA ESCONDIDA, MEXICO

Quantity Purchased (in Kilograms)



Average Price per Kilogram



18°5'40.16"N 93°13'18.07"W

FERMENTATION STYLE | LINEAR BOXES

DRYING STYLE | GAS DRYING, CEMENT PATIOS, MESH NETS

PROFILE BY | NATE

FLAVOR PROFILE | NUT, ROASTED, CHOCOLATE, WOOD

THE PÉREZ REYES FAMILY & SMALLHOLDER FARMERS GROW BEANS

REVIVAL CACAO BUYS, FERMENTS, & DRIES BEANS

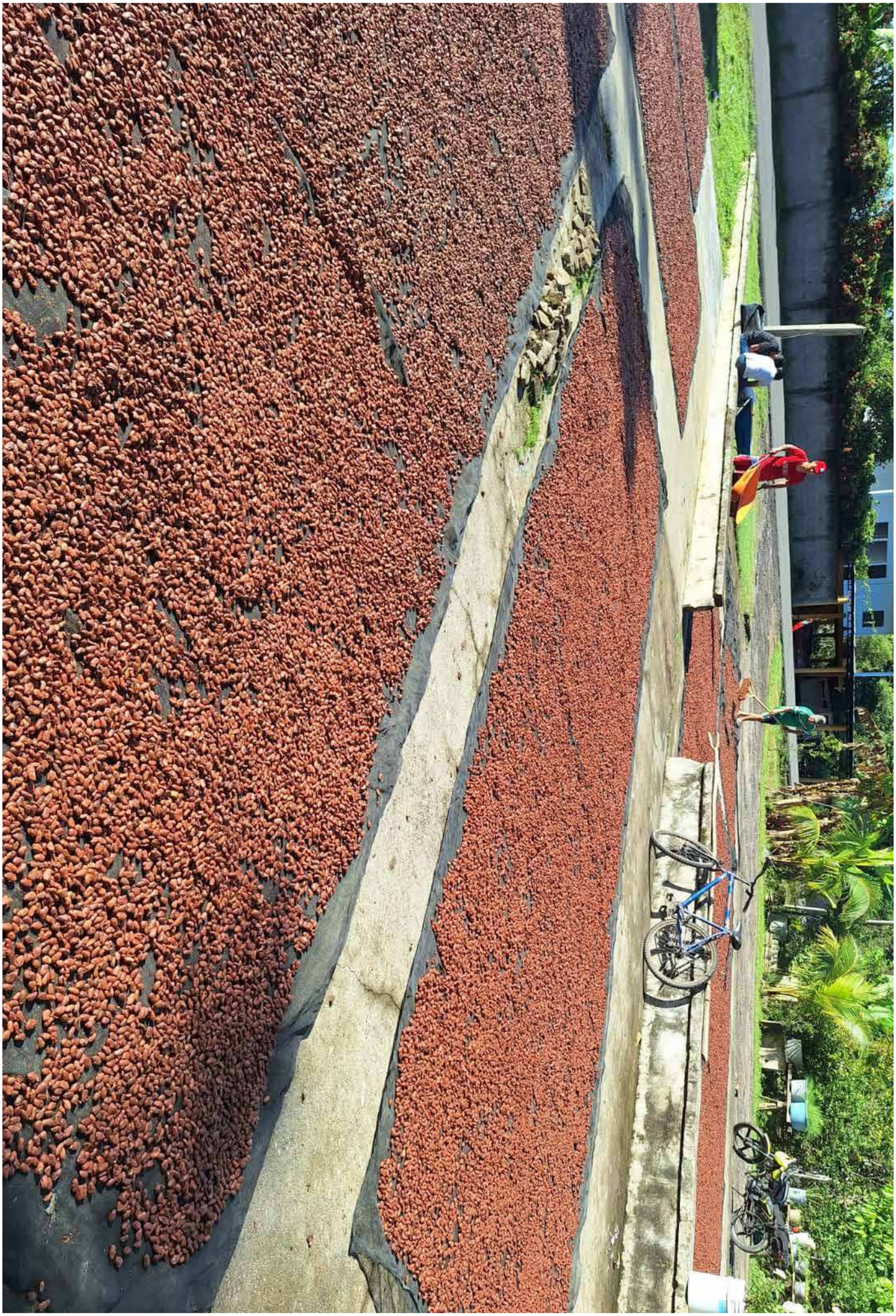
EXPORT BY REVIVAL CACAO

IMPORT BY REVIVAL CACAO

Percentage of total beans purchased from all producers over 2023

0.6%

AGUA ESCONDIDA, MEXICO



AMBANJA, MADAGASCAR

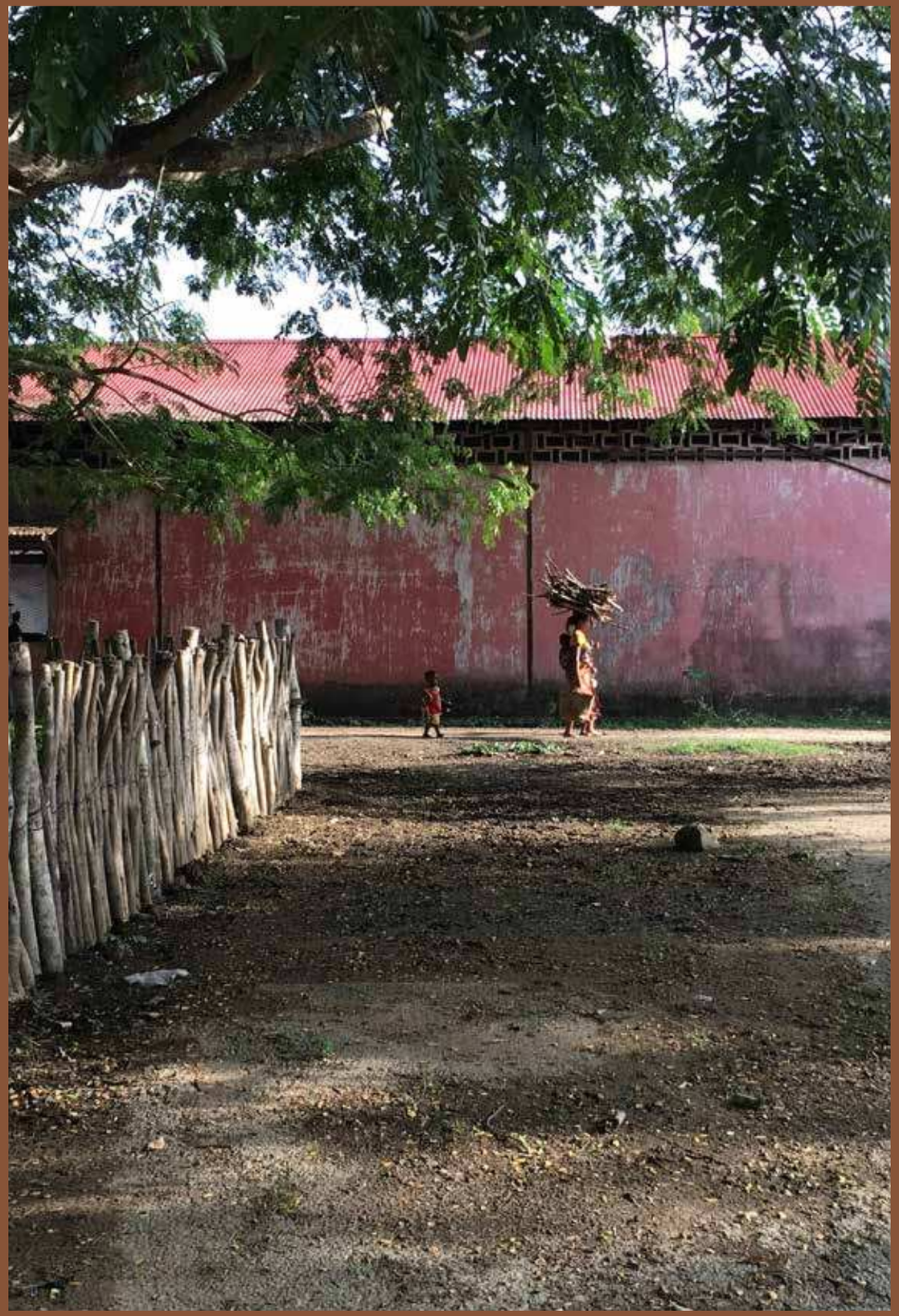
In 2012, Dandelion Chocolate purchased our first full container of beans — from Bertil Akesson's Bejofo Estate, which has been growing cacao in Ambanja, Madagascar since 1920. We've bought from them consistently ever since, and for the first time in 2017, purchased two full containers (around 25 tonnes) of Bejofo Estate beans.

Akesson's 600-hectare estate, where cacao trees up to 80 years old flourish, is the largest single estate with which we work. Bertil's operation is smooth and consistent. Every morning during harvest season, farm workers cut down about 400 ripe pods each, crack them open, and move the juicy, pulp-coated beans quickly into fermentation boxes, where the beans ferment for six days. Fermenting beans immediately after harvest is a crucial piece of quality control, and Bertil ensures that it happens within hours. Once fermented, the beans dry briefly in full sun on cement patios before being moved to elevated drying decks to finish drying slowly. While it's hard to know for certain, we believe this two-part drying process is partially responsible for the beans' flavor.

Climate change has become a huge challenge for the team in Madagascar. Over the last decade they've seen peak season move from September through November, to October through January. Additionally, rain patterns are shifting — less rain from July through September, and more rain December through February. This can affect cacao yields, as less rainfall while the trees are developing flowers and pods will usually result in less cacao. Conversely, more rain can oversaturate the soil, causing cacao-protective shade trees to fall.

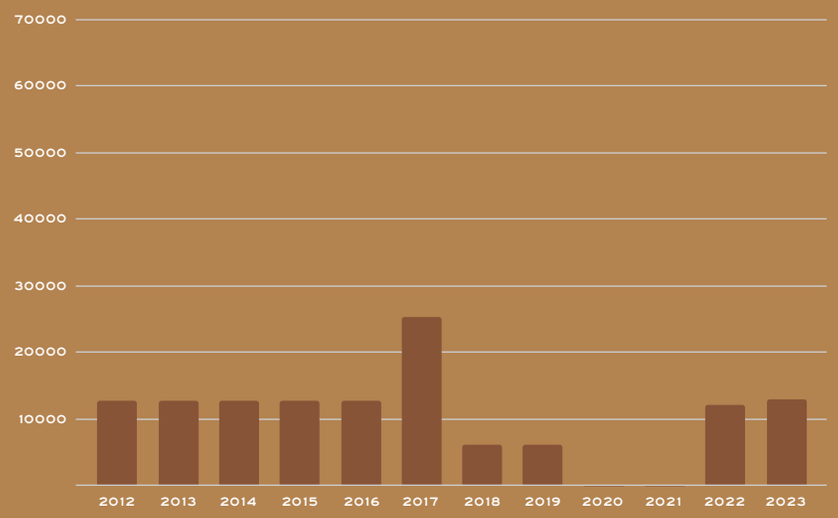
We are proud to work with Bertil both because we love his beans, and because we believe that he has paved the way for much of specialty cocoa's development. The flavors in his beans change slightly every year, but always include bright fruit and punchy acidity. The bars we create from Bertil's cocoa are among our customers' favorites; they taste nothing like what most Americans think of as "chocolatey." When Bertil started producing beans, most makers were seeking something that tasted like, well, chocolate. Bertil broke the mold and produced cocoa that was intriguing, fruity, and intensely different. Many new chocolate makers now use these beans because they invariably yield distinctive, attention-grabbing bars.

Once cocoa producers saw that there was a market for uniquely flavored cocoa, the floodgates opened and producers started creating new and interesting flavors. Bertil was the first to take this risk. We look forward to continuing our relationship with Bertil, and to making some of our most interesting chocolate from his beans. He has begun a variety of projects in countries beyond Madagascar, and we are eager to see what the future holds for Bertil and his impact on the cocoa industry.

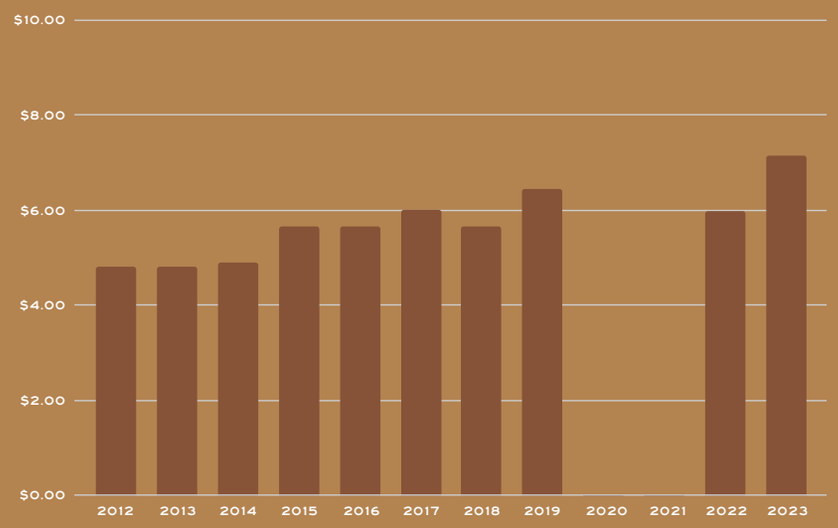


AMBANJA, MADAGASCAR

Quantity Purchased (in Kilograms)



Average Price per Kilogram



13°39'27.8"S 48°28'02.2"E

FERMENTATION STYLE | 4-TIER BOXES

DRYING STYLE | RAISED WOODEN BEDS, CEMENT PATIOS

PROFILE BY | ERIC

FLAVOR PROFILE | FRUIT, DAIRY, CHOCOLATE

AKESSON'S ORGANIC ESTATE GROWS, FERMENTS, DRIES, & BLENDS BEANS

EXPORT BY AKESSON'S ORGANIC ESTATE

IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE

Percentage of total beans purchased from all producers over 2023

7.8%

AMBANJA, MADAGASCAR

ANAMALAI, INDIA

In 2017, Dandelion Chocolate made our first bar with beans from Asia. The beans were grown in Tamil Nadu, one of the two southernmost states in India, an area known more for tigers than cacao.

This cocoa is produced by brothers-in-law Harish Manoj Kumar and Karthikeyan (Karthi) Palanisamy of Regal Plantations, just outside the settlement of Anamalai. Harish is originally from Pollachi, near Regal Plantations, and for many years his family has run multiple farms around Pollachi, focusing on cacao, coconut, and nutmeg. In 2014, Harish took over running the family farms, and partnered with Karthi to improve the quality and flavor of the cacao growing between 30-year-old coconut palms. The brothers-in-law employ around 100 people, 60 of whom are women, and the size and diversity of farms allow Harish and Karthi to experiment with various methods to improve agricultural quality.

The team has focused on creating a sustainable cultivation system on the farms, gradually reducing chemical use until phasing it out completely in 2017. Harish and Karthi subsequently began implementing the Korean natural farming method to enrich the soil with indigenous microorganisms. The method involves constant experimentation and adaptation, relying on understory and overstory crops; as well as on livestock to help manage weeds and fertilize trees. It's easy to see this system's success in the increasingly robust health of Regal Plantations' trees over the years; the difference is incredible.

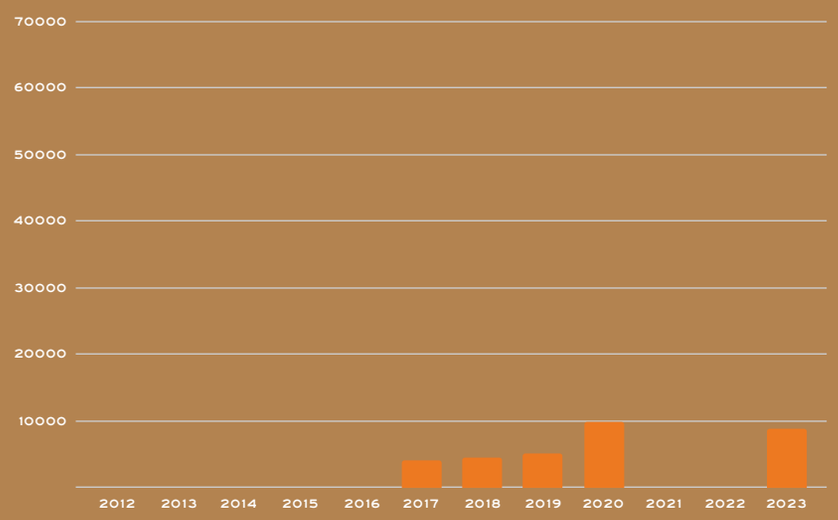
Greg was introduced to Harish and Karthi in 2015 by Meridian Cacao's Gino Dalla Gasperina, whom he had met at Chocoa, a cocoa and chocolate festival in Amsterdam. Greg and Gino decided to stop by Regal Estates "en route" to Tanzania. Greg was blown away by the operation's high level of attention to farming detail, but noted that the fermentation process still needed improvements.

After the initial 2015 visit, Dandelion Chocolate and Meridian Cacao teamed up in supporting Dan O'Doherty, a fermentation expert with Cacao Services, to travel to Regal Plantations in June 2016 to help the Regal team fine-tune their fermentation process. Based on feedback from Dan, Harish and Karthi decided to move their fermentation and drying facilities to a nearby area with better conditions; to build completely new structures; and to retrain their staff on fermentation and drying practices. Fortunately for all involved, the changes worked wonders. When Greg visited in 2017, improvement was clear. The new agricultural systems had increased the trees' productivity remarkably, and the updated fermentation process expressed itself in the beans' new and intense flavor.

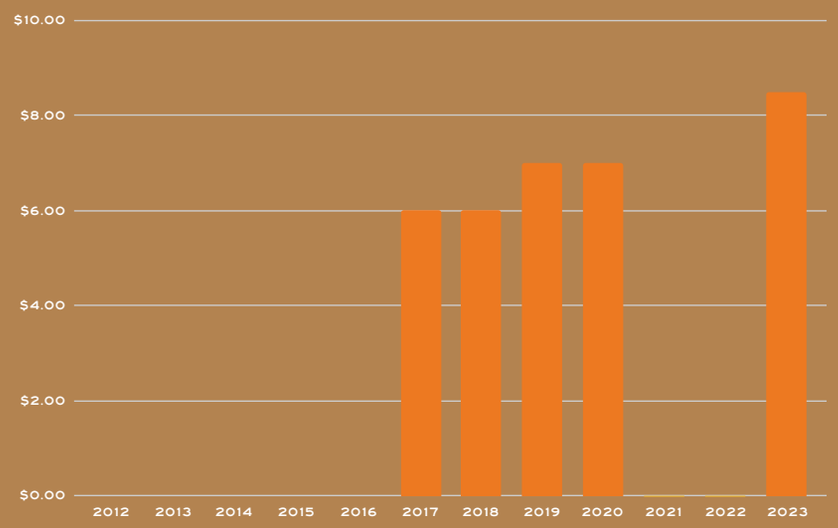
Harish's and Karthi's hard work brought international acclaim when their beans won a Cacao of Excellence Award in 2017. Being the innovative team they are, they even used nutmeg produced on their land in a 2019 spice-fermentation experiment, resulting in some exceptionally tasty beans that we turned into our first-ever Nutmeg Ferment bar! We love using Regal Plantations' beans in both the U.S. and Japan, and look forward to seeing how their product evolves.

ANAMALAI, INDIA

Quantity Purchased (in Kilograms)



Average Price per Kilogram



10°39'18.2"N 77°01'45.4"E

FERMENTATION STYLE | 5-TIER BOXES

DRYING STYLE | RAISED MESH BEDS, CEMENT PATIOS

PROFILE BY | TREVOR

FLAVOR PROFILE | FRUIT, HERBACEOUS, DAIRY

REGAL PLANTATIONS GROWS BEANS & BUYS PODS FROM SMALLHOLDER FARMERS

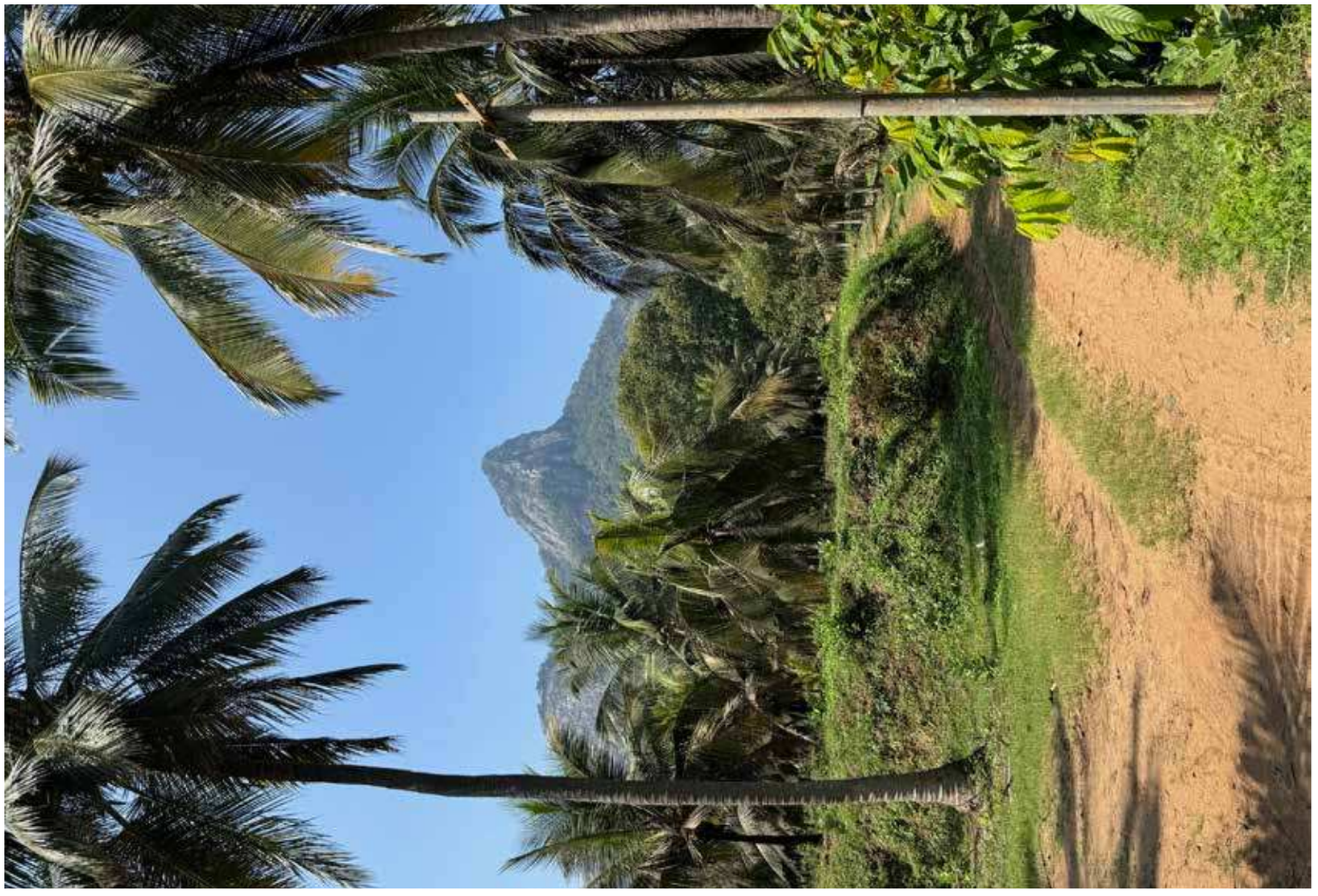
REGAL PLANTATIONS FERMENTS, DRIES, & BLENDS BEANS

EXPORT BY REGAL PLANTATIONS

IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE

Percentage of total beans purchased from all producers over 2023

5.2%



ANAMALAI, INDIA

BẾN TRE, VIETNAM

You might know Marou Faiseurs du Chocolat (Marou), more as a chocolate brand than a cocoa supplier. We also first got to know them through their tasty chocolate and beautiful packaging. Marou launched their business in 2011, just a year after Dandelion Chocolate, and we've been consistently impressed by their products since. While we've focused on making two-ingredient, single-origin chocolate using cocoa sourced from many countries, Marou has concentrated on making chocolate products in Vietnam, from Vietnamese ingredients. They have built relationships and provided support to a network of cocoa producers throughout Vietnam, and in turn produce chocolate from each small, unique origin.

In 2019, Greg and a portion of the Dandelion Chocolate U.S. and Japan teams visited Marou to learn more about the company and the producers with whom they work. Our team members were able to visit a number of producers, as well as the Marou factory and both Maison Marou café / patisserie locations. It was fascinating to see the parallel between Dandelion and Marou.

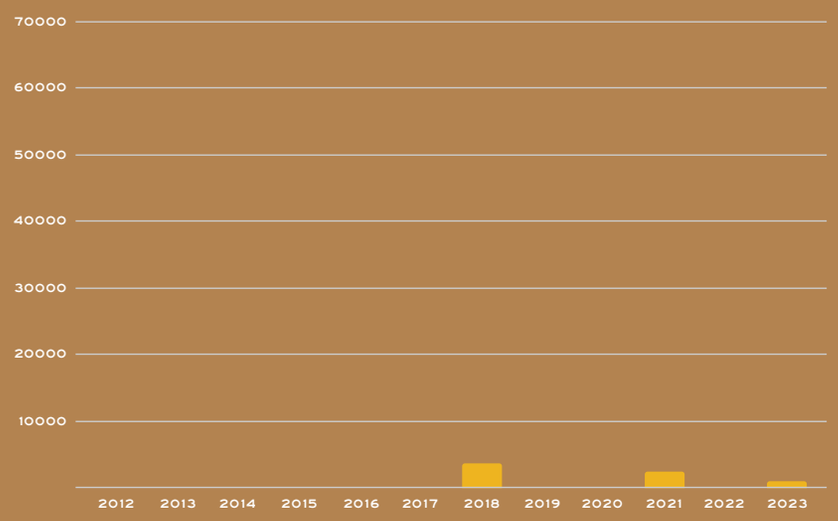
As Dandelion and Marou emerged over the same time, making similar products, it felt natural to us both that we should work together. We love Marou's chocolate and hoped to procure some of the same beans, thereby increasing the quantity of beans purchased from Vietnamese producers at premium price. The question was which producer could supply enough beans for both Marou and another company like us. We didn't need an enormous quantity compared to the amount we source from other origins. (To date, our smallest origins typically sell us approximately one to three tonnes of beans; but even three tonnes is a lot for a small group to produce.)

At Marou's suggestion, we decided to work with Bến Tre, located in southern Vietnam along the Mekong Delta. In part, this was because we love the flavors in the Bến Tre bar that Marou makes — and also because Marou felt confident that the producers could reliably supply enough beans for both of us. The beans we source are produced by two small fermenters, Mr. Son and Ms. Ban. Marou has been working with them for many years. Each fermenter buys cacao pods from their neighbors, purchasing from around 60 small farmers in total. They ferment the beans in linear boxes and dry them on elevated mesh decks. The Marou team inspects and purchases the best beans, and then blends them for consistency. This last step is a key factor for beans we use at Dandelion, as it helps ensure we can keep flavor consistent within a single harvest of beans.

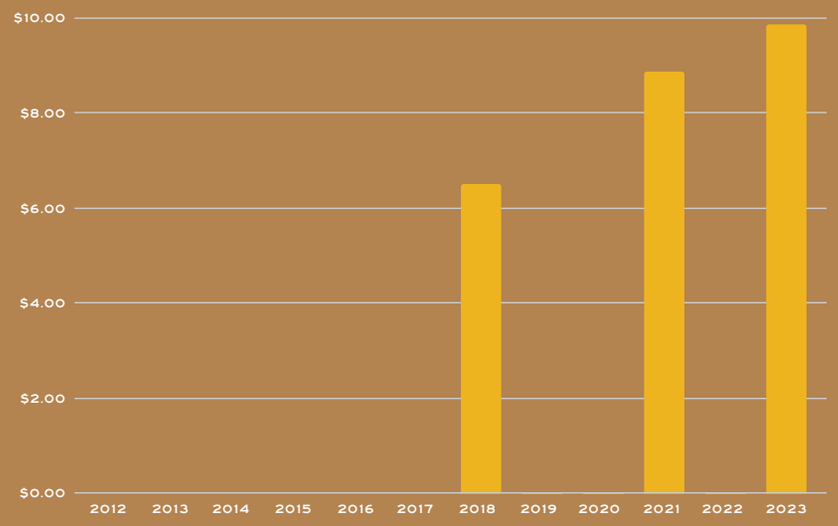
If you'd like to learn more about Marou or Bến Tre, Marou's website contains a sourcing report which provides additional information. There are numerous links in the value chain that brings Bến Tre beans from Vietnam to San Francisco (and then sends a portion on to Tokyo), and we are honored to work with each and every person involved. Marou and Dandelion continue to grow: We've opened new shops, created new products, and worked with new origins, and the two teams purchase similar quantities of cocoa. We look forward to what the future holds for both companies.

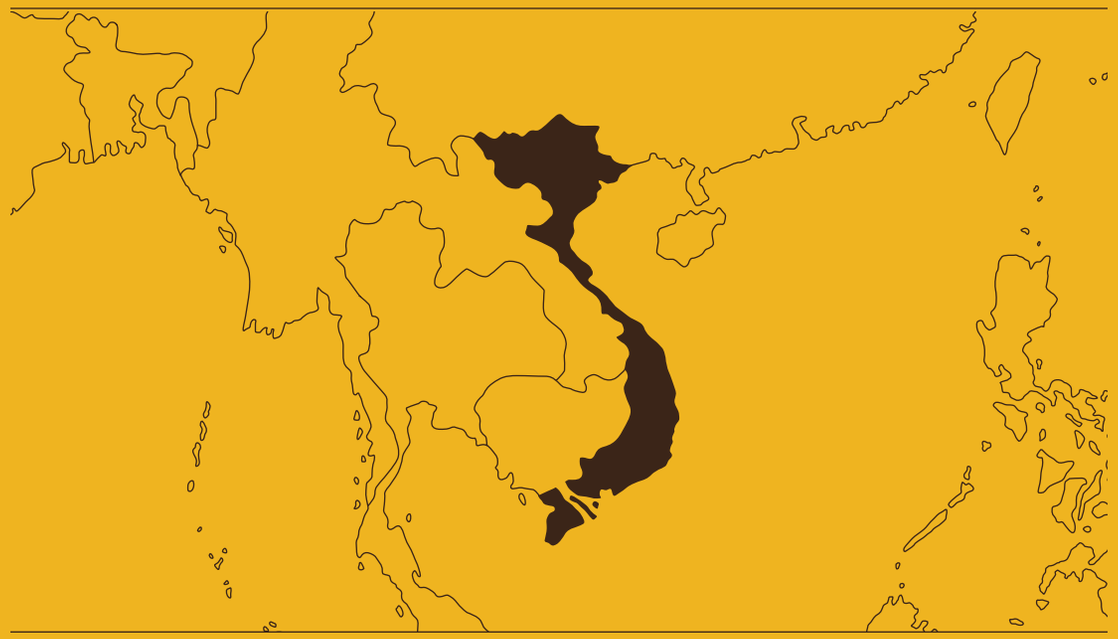
BẾN TRE, VIETNAM

Quantity Purchased (in Kilograms)



Average Price per Kilogram





10°18'17.4"N 106°14'16.5"E

FERMENTATION STYLE | LINEAR BOXES

DRYING STYLE | RAISED MESH BEDS

PROFILE BY | RICHARD (U.S.A.) & YUKI (JAPAN)

FLAVOR PROFILE | SWEET AROMATIC, SPICE, FRUIT

Percentage of total beans purchased from all producers over 2023

0.6%

BẾN TRE, VIETNAM

CAMINO VERDE, ECUADOR

Vicente Norero, the owner and general manager of Camino Verde Cacao, is one of the most innovative cocoa producers we know. We love the flavor of his beans so much that not only do we make them into two chocolate bars — an 85% and a 100% — but we also turn them into ground 70% chocolate, which we use in nearly all of our U.S. café drinks, and pastries.

Camino Verde's base of operations is in Duran (near Guayaquil), where Vicente ferments and dries beans, and runs a full chocolate factory which co-manufactures chocolate for multiple makers. Making chocolate in his own factory means that Vicente has the capacity to develop specific flavor profiles for different customers, tailoring his process and getting instant, direct feedback about how various cocoas taste as chocolate. He buys freshly harvested, unfermented beans from over 100 farmers and associations around Ecuador, searching out beans that represent the uniqueness of Ecuadorian cacao. Working successfully with beans from all over the country means continually learning new aspects of fermentation. For instance, cacao grown at high altitude may not ferment the same way as cacao grown at sea level. Every set of beans from each part of Ecuador requires time and experimentation to learn how it is best fermented.

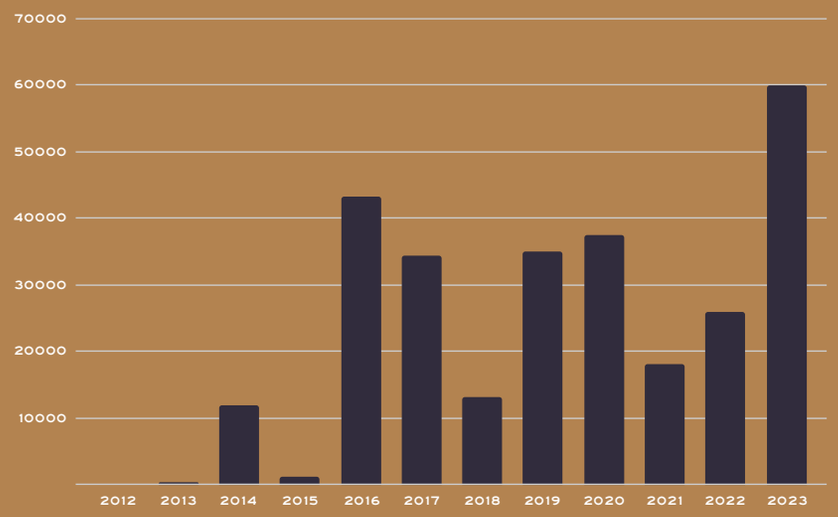
In addition to focusing on unique, high-quality cocoa, Camino Verde works with marginalized groups in Los Ríos, central Ecuador; and in Esmeraldas, up north, to improve their crops — and, as a consequence, their livelihoods. Camino Verde has opened dedicated bean-collection points near distant farms, and built the infrastructure needed to ferment beans locally before shipping them to Duran.

We have worked with Vicente for many years, and are delighted to witness the growth of his operation.

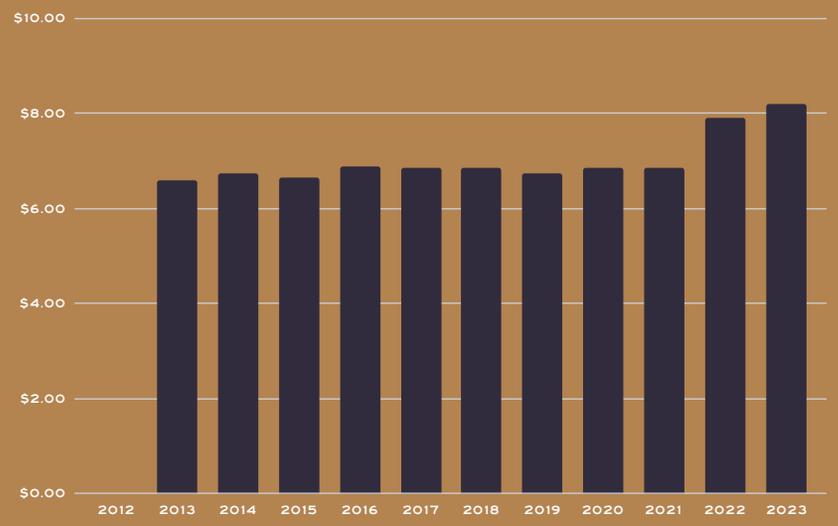
We are deeply impressed by his dedication to the pursuit of flavor, as well as by his efforts to boost farmers' incomes. Dandelion Chocolate has purchased more beans from Camino Verde than from any other single producer, and we couldn't be happier with that decision.

CAMINO VERDE, ECUADOR

Quantity Purchased (in Kilograms)



Average Price per Kilogram



2°12'23.7"S 79°48'24.4"W

FERMENTATION STYLE | LINEAR BOXES

DRYING STYLE | CEMENT PATIOS

PROFILE BY | ERIC

FLAVOR PROFILE | CHOCOLATE, DAIRY, NUT

SMALLHOLDER FARMERS GROW BEANS

CAMINO VERDE BUYS, FERMENTS, DRIES, & BLENDS BEANS

EXPORT BY CAMINO VERDE

IMPORT BY MERIDIAN CACAO

Percentage of total beans purchased from all producers over 2023

36.4%

CAMINO VERDE, ECUADOR

COSTA ESMERALDAS, ECUADOR

Costa Esmeraldas' Freddy Salazar produces fascinating and unique cocoa that we make into one of our favorite bars. Nearly 15 years ago, Freddy's father purchased two properties on the northeastern side of the beautiful Esmeraldas coast. The properties were covered by dry pastureland, a eucalyptus farm, and wild forest inaccessible by road — and were not ideal for growing cacao. Undeterred, father and son set out to construct a farm and a cocoa-processing facility.

What began as a passion project for the Salazar family has evolved into a thriving farm of over 340 hectares, 200 of which are used for growing cacao. While most of the trees, and the beans we buy, are Neo-Nacional, the farm also produces CCN-51 pods as a cash crop, selling to the local bulk-cocoa market. In addition, the farm produces bananas and citrus, and 50 hectares of land have been preserved as virgin forest, providing a thriving habitat for flora and fauna.

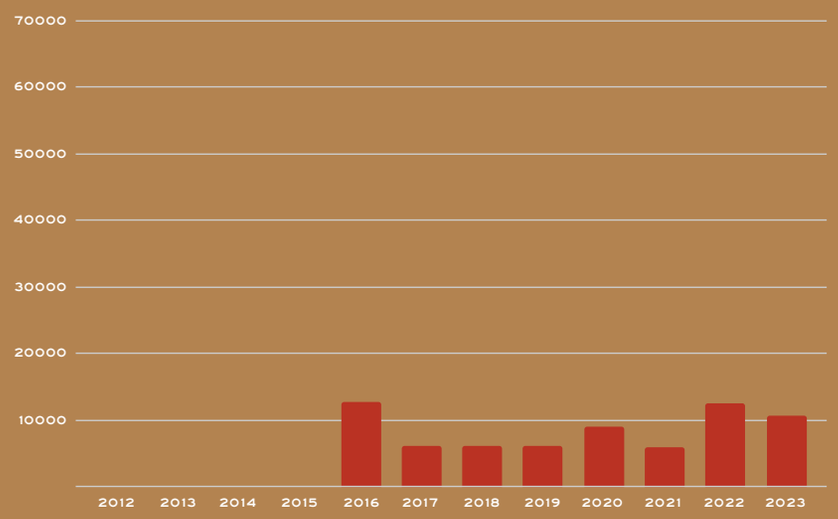
Freddy's Neo-Nacional trees, crossbred from the original Ecuadorian Nacional variety and other varieties to increase production and disease tolerance, require different growing conditions from CCN-51 hybrid trees. CCN-51 is a clone used throughout Ecuador for bulk cocoa, due to its hardiness, disease resistance, and ability to grow prolific numbers of pods. When the Salazars started their farm, they received advice about growing based only on CCN-51 — tips such as not to use shade trees. This meant the family had to work hard to shift the farm from where it began to ensure that their Neo-Nacional trees thrived: via shade creation, careful disease management, and frequent pruning.

It has not been easy for the Salazars to adjust; at one point they considered selling their farm. However, Freddy has helped push the business toward experimentation, and he continually learns from others in the industry. At Costa Esmeraldas, Freddy and his team place high value on being good neighbors to nearby communities, and on protecting flora, fauna, water, soil, workers, and everyone involved in or affected by the farm's operations. In 2017, they carefully expanded the farm based on analysis of both the cost effectiveness of new plantings, and the environmental impact of expansion; they selected cacao varieties they envision will cater to chocolate makers' future desires. They also completed a fermentation and drying facility designed by Dan O'Doherty, based on designs from the Fundación Hondureña de Investigación Agrícola (FHIA), the Honduran institute specializing in agriculture and cacao.

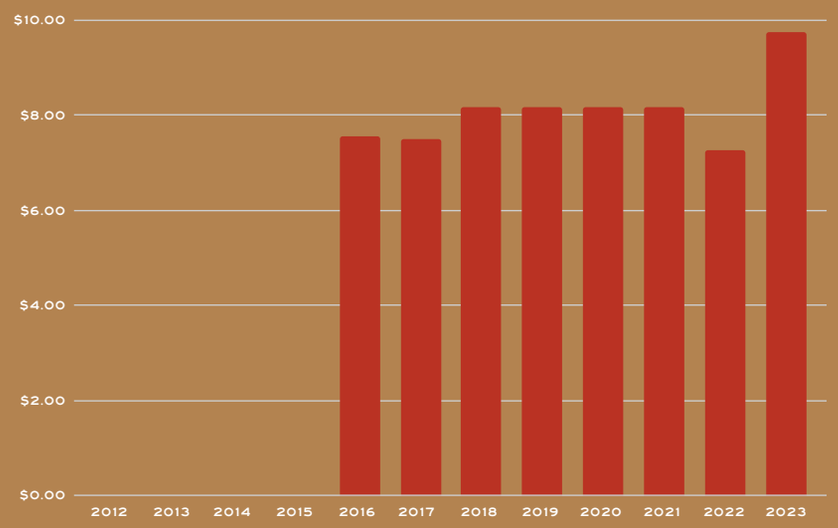
In 2019, the many investments paid off when Costa Esmeraldas earned a Cocoa of Excellence Award. We've worked with Freddy since 2016, and expect that under his leadership, Costa Esmeraldas' well-deserved reputation as a source of high-quality cocoa for global craft chocolate makers will continue to grow, as will his business.

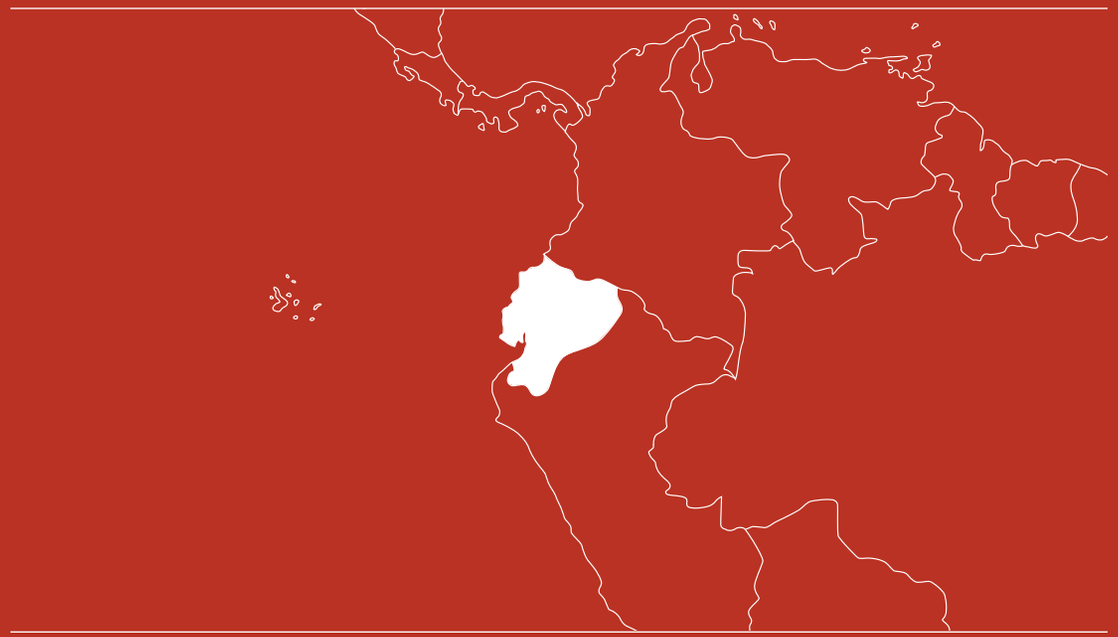
COSTA ESMERALDAS, ECUADOR

Quantity Purchased (in Kilograms)



Average Price per Kilogram





0°47'48.9"N 79°56'16.1"W

FERMENTATION STYLE | 5-TIER BOXES

DRYING STYLE | RAISED MESH BEDS, CEMENT PATIOS, GREENHOUSE

PROFILE BY | ERIC

FLAVOR PROFILE | CHOCOLATE, FRUIT, DAIRY

COSTA ESMERALDAS ESTATE
GROWS, FERMENTS, & DRIES BEANS

EXPORT BY
COSTA ESMERALDAS

IMPORT BY
COSTA ESMERALDAS

Percentage of total beans purchased from all producers over 2023

6.4%

COSTA ESMERALDAS, ECUADOR

KPALIMÉ, TOGO

It was after the 2022 Salon du Chocolat in Paris that Greg first met Oskar Jönsson, Head of Cocoa Sales at gebana, a Swiss company building sustainable supply chains. As it turned out, Oskar was already working with Dandelion's friend Julia Zotter, of Zotter Chocolate in Austria. Greg was a fan of Zotter's Togo bar, so he was curious to learn more. Oskar sent us a cocoa sample to evaluate, sourced from Vision+, a cooperative located near Kpalimé, Togo.

After analysis and tasting, we knew that there was something special about this cocoa — the flavor profile is intensely chocolatey. Additionally, we appreciated the work that went into these Togo beans, which are grown, fermented, and dried by individual farmers. While that is how most cocoa in the world is produced, none of our prior producing partners works in such a way; we'd always bought beans from either larger farms, or from centralized facilities, as those operating models tend to offer the best quality control. In Togo, individual farmers grow, ferment, and dry the beans, then gebana grades and sorts them to ensure a good, consistent product.

Cacao first came to Togo with the French colonizers in the early 1900s. It's grown in the western part of the country, in a relatively small area, especially compared to neighboring Ghana and Cote d'Ivoire (where over 70 percent of the world's cacao is cultivated). gebana has been developing a cacao-farming network in Togo for over a decade, and they presently work with about 2,000 smallholder farmers (many of them certified organic), split into five cooperatives. Cooperative Vision+ — which provides our beans — is made up of 422 smallholder farmers, of whom 64 are women, and 250 are certified organic.

The typical cacao farm in Togo is about half a hectare, and produces on average 250 kilograms of beans a year. It can be a challenge making a living just by growing cacao, so interspersed among cacao trees might be other crops such as coffee, maize, or plantains, destined for local markets. However, the additional cash from export crops like cocoa is important, as it enables individual investment choices — including medical care, children's continuing education, or simply improving quality of life.

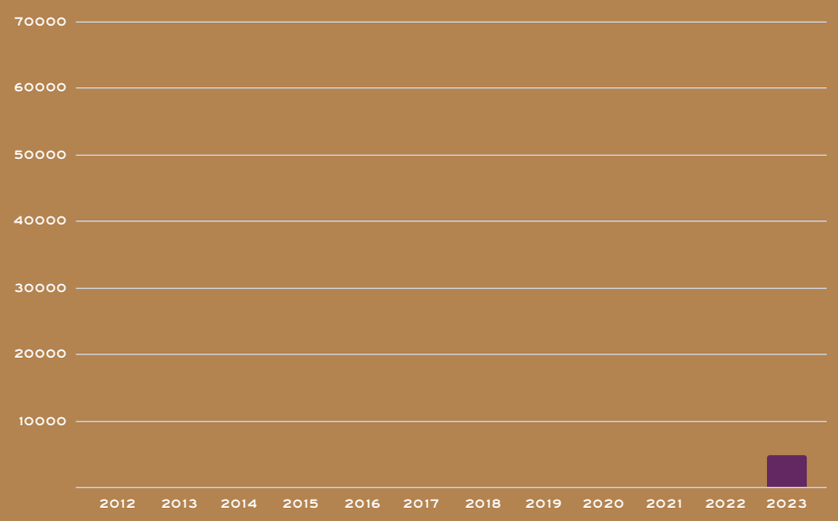
As mentioned, each Togolese smallholder farmer not only grows and harvests their own cacao, but also does all of the fermentation and drying. After harvesting and cracking open pods, farmers pile wet beans into heaps and cover them with banana or plantain leaves, then turn them every few days to achieve an even fermentation — a process that takes around seven days. Once fermentation is complete, the beans are placed onto elevated drying tables made of bamboo for about 10 days. Once dried, the beans are brought to a centralized facility where they are sorted, blended, and bagged for export.

gebana's mission is to bring Togolese cocoa to the world market. The company supplies farmers with a variety of seedlings to encourage wider plant diversity within each farm, and provides training in organic farming techniques. gebana also assists in commercializing other crops besides cocoa — for example, through the production of plantains sourced from Vision+ farmers' plots.

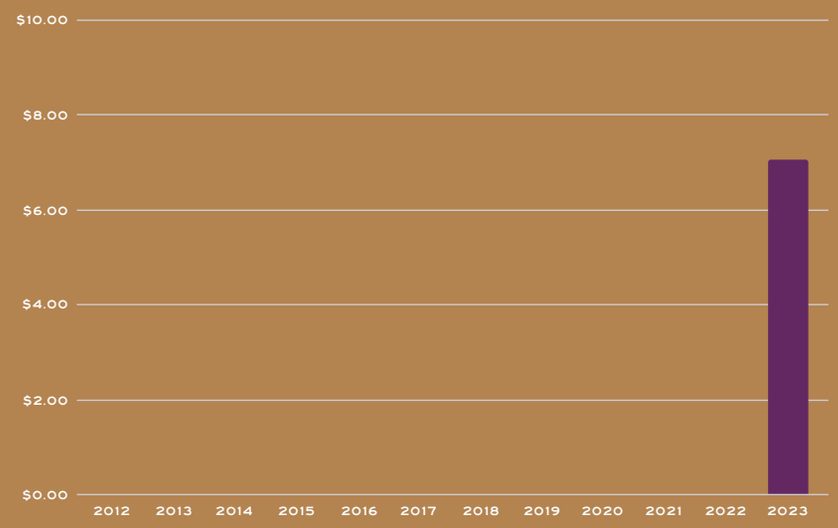
Finally, gebana offers the "gebana Model," which allows businesses like Dandelion to pay a higher price than requested for good cocoa. At the end of the season, that premium is paid out to all of the cocoa farmers in gebana's Togo network. This payment model is critically important to ensure that farmers who make a great product get paid for their work. We look forward to our Togo bar hitting the shelves in 2024.

KPALIMÉ, TOGO

Quantity Purchased (in Kilograms)



Average Price per Kilogram



6°54'35.3"N 0°37'47.6"E

FERMENTATION STYLE | HEAP

DRYING STYLE | RAISED BAMBOO BEDS

PROFILE BY | TBD

FLAVOR PROFILE | CHOCOLATE, NUT, DAIRY

SMALLHOLDER FARMERS GROW, FERMENT, & DRY BEANS

VISON+ CO-OP BUYS & BLENDS BEANS

EXPORT BY GEBANA

IMPORT BY CAÇAO LATITUDES FOR DANDELION CHOCOLATE

Percentage of total beans purchased from all producers over 2023

3%

KOKOA KAMILI, TANZANIA

Kokoa Kamili's Brian LoBue and Simran Bindra have built a successful cacao business in the remote Kilombero region of Tanzania, while learning from industry colleagues and seeking to improve conditions for everyone in the value chain. Kokoa Kamili buys wet beans from over 5,000 Tanzanian farmers, then ferments and dries them in a centralized facility. By consistently controlling and enhancing quality, they produce an outstanding cocoa bean, and are able to garner a premium price; they supply a large quantity of specialty cocoa to the global craft-chocolate market. Kokoa Kamili invests the same degree of care and thought into their cocoa that we aim to put into our chocolate, making them an ideal Dandelion partner.

We have worked with Kokoa Kamili since 2014, and are inspired by their growth — from shipping their first container, to supplying chocolate makers around the world. To meet the needs of their cocoa operation more effectively, in early 2023 they began planning a new production facility with increased capacity; it includes a permanent drying space (as opposed to mobile drying beds), as well as a nursery in which to create more than half a million seedlings for distribution to their farmer network.

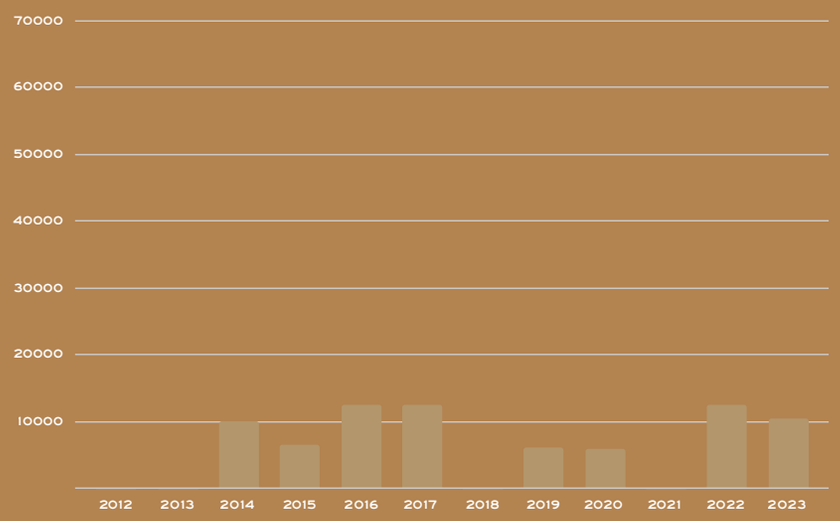
Additionally, in 2022 they brought on a full-time agronomist, Annanias, who has been building out the team's "mother tree" selection procedure, among other projects. He ensures that the best possible trees are selected for propagation; developed a grafting program for their nursery; and further professionalized Kokoa Kamili's farmer trainings on good agronomic practices.

Kokoa Kamili's production continues to expand with new buyers every year — 2023 was their biggest production year yet — and they recently began offering cocoa powder and cocoa butter through Meridian Cacao. Despite their production growth, quality remains high and the prices consistent. Kokoa Kamili's bean quality is evidenced by the number of small-scale chocolate makers sourcing from them year after year. The team's continuous learning has also paid off in other ways, earning them a coveted Cocoa of Excellence Award at the 2017 International Cocoa Awards in Paris.

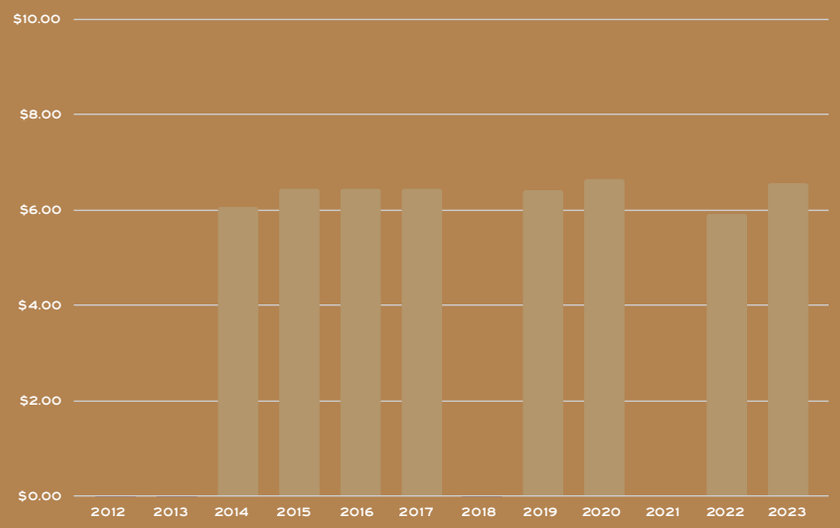
Because we love the Kokoa Kamili team so much, we bring guests to visit them! In 2017, Kokoa Kamili began annually hosting a group from Dandelion Chocolate, composed of our customers, along with the occasional chocolate maker. These trips help people from around the world to learn more about Kokoa Kamili, and allow their team to meet end customers of their product. We find it's a great way to close the loop on a complex supply chain, while learning more about each other along the way. We look forward to hosting these trips again soon!

KOKOA KAMILI, TANZANIA

Quantity Purchased (in Kilograms)



Average Price per Kilogram



8°12'11.8"S 36°14'56.5"E

FERMENTATION STYLE | 3-TIER BOXES

DRYING STYLE | RAISED MESH BEDS

PROFILE BY | NATE

FLAVOR PROFILE | FRUIT, DAIRY, FLORAL

SMALLHOLDER FARMERS GROW BEANS

KOKOA KAMILI BUYS, FEREMENTS, DRIES, & BLENDS BEANS

EXPORT BY KOKOA KAMILI

IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE

Percentage of total beans purchased from all producers over 2023

6.3%

KOKOA KAMILI, TANZANIA

LUNA CLARA, VENEZUELA

You may remember our Mantuano, Venezuela bar that we made, beginning in 2013, from beans grown and fermented by Flor de Mantuano, an excellent cooperative located in the Mantuano area of Venezuela. While we were happy with our partnership with them, the political situation in Venezuela presented challenges, and 2016 was our final year working together.

In 2022, we were contacted by Moises Esteves, whose father, Alfredo Esteves, owns an estate and fermentary in Mantuano called Hacienda Luna Clara. Not only do they grow cacao and produce cocoa, but they also buy beans from neighboring Flor de Manuatuno (who now primarily produce cocoa for cocoa butter and cocoa powder). We love the cocoa being produced in Mantuano so much, we knew we wanted to learn more about Luna Clara's work.

Once we tried a sample of the Luna Clara beans, we were instantly reminded of why we enjoy the cocoa coming from Mantuano in the first place — it's delicious and densely chocolatey, with flavors of roasted nuts running throughout.

Previously Alfredo, who has a degree in metallurgical engineering, ran his own trailer manufacturing business. He also always had a passion for food, so attended culinary school to further his hobby. After completing school, he knew he wanted to get involved with cacao farming and chocolate making, so in 2017 he acquired a farm and named it Hacienda Luna Clara. At the time the land was used for cattle, but given that Mantuano is well known for growing cacao, Alfredo began to plant his own trees on the farm. He even enlisted the University of Central Venezuela to study and identify the ideal genetic strains of cacao to cultivate on his land. To date Luna Clara has around 1,300 cacao trees and four full-time employees, and processes about 15 metric tonnes of cocoa annually.

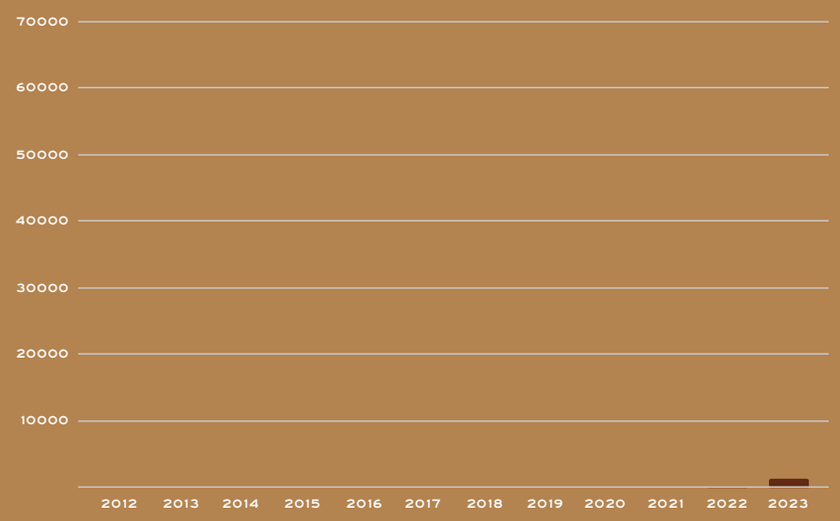
Once Luna Clara had operated for a few years, Alfredo recovered a nearby Yaracuy farm called La Cocorota that had belonged to his family decades before. He then purchased another farm in Aroa, Yaracuy — where the bulk of the Esteves family's cacao is now grown. It was a personal goal of Alfredo, who grew up in Yaracuy, to bring back the cocoa traditions that had been part of this land centuries ago. Another goal is to educate people on Venezuela's rich history with cocoa; so at all of the Esteveses' farms, special events and tours enable the public to learn how cocoa was produced in Venezuela three hundred years ago, and today.

In 2017 the Esteves family started making their own bean-to bar-chocolate under the brand 20/20 Chocolates — named for the twenty degrees north and south of the equator between which cacao is grown. What started in the family's house now occupies a dedicated factory, and a second factory is currently being built on Esteveses' farm in Yaracuy. Like any of our producing partners who also make their own chocolate, the Esteves family are able to obtain immediate flavor feedback on their cocoa, which allows them to make adjustments to their processing in real time. Their bars regularly win awards at the International Chocolate Awards.

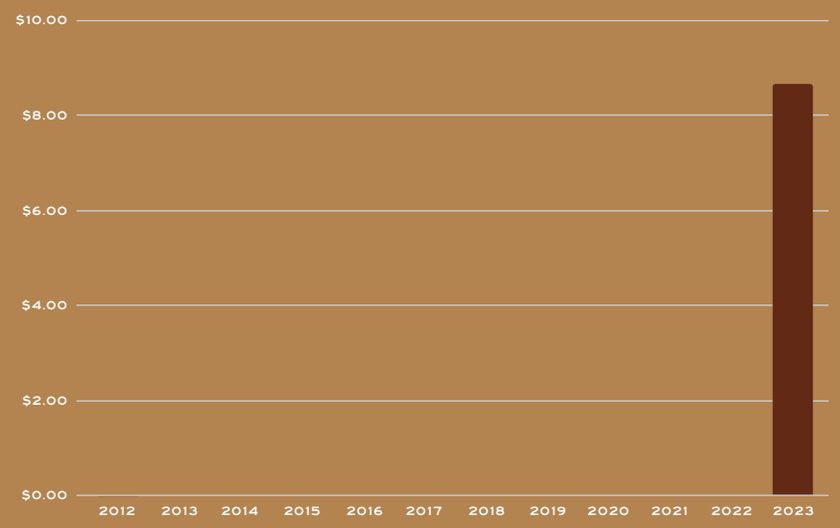
We couldn't be more pleased to be working with our new partners in Venezuela, and we are thrilled once again to be making chocolate from beans sourced from Mantuano.

LUNA CLARA, VENEZUELA

Quantity Purchased (in Kilograms)



Average Price per Kilogram



10°25'35.0"N 68°03'09.7"W

FERMENTATION STYLE | 3-TIER BOXES

DRYING STYLE | CEMENT PATIO, GREENHOUSE

PROFILE BY | TREVOR

FLAVOR PROFILE | CHOCOLATE, NUT, ROASTED

HACIENDA LUNA CLARA GROWS BEANS & BUYS BEANS FROM LA FLOR DE MANTUANO CO-OP

HACIENDA LUNA CLARA FERMENTS, DRIES, & BLENDS BEANS

EXPORT BY HACIENDA LUNA CLARA

IMPORT BY HACIENDA LUNA CLARA

Percentage of total beans purchased from all producers over 2023

0.6%

LUNA CLARA, VENEZUELA

MAYA MOUNTAIN, BELIZE

Maya Mountain Cacao (MMC) is a social enterprise established to connect small-scale cacao growers in Belize to the international specialty-cocoa market. Located in Toledo, near the coast, they were the first company in the country to buy wet beans from farmers, and to emphasize the importance of bean quality. Based around a centralized fermentary, MMC purchases from family farms in southern Belize, committing to a consistent price throughout the season. MMC currently buys from 450 farmers who are registered and certified organic — the majority of whom identify as indigenous Q'eqchi' and Mopan Maya. Dandelion has been buying beans from MMC since 2013, and it has been a pleasure to witness their success.

The popularity of craft chocolate generally, and bars made from Belizean cocoa in particular, has been growing for years. Dandelion Chocolate and other makers produce Belizean bars, so people around the world began paying attention to the tiny amount of cocoa coming out of southern Belize. This led to something of a gold rush. Up until 2016, the only buyers in Toledo were MMC and the Toledo Cacao Growers Association (TCGA). In 2017, six new buyers joined the market; and while competition can be a good thing, in this case it caused a market bubble, driving prices up. If you're familiar with the history of other market bubbles, you can imagine what happened next. Many farmers had sought loans to buy seedlings, etcetera, hoping to capitalize on the high prices — and when prices crashed, they were left holding the bag.

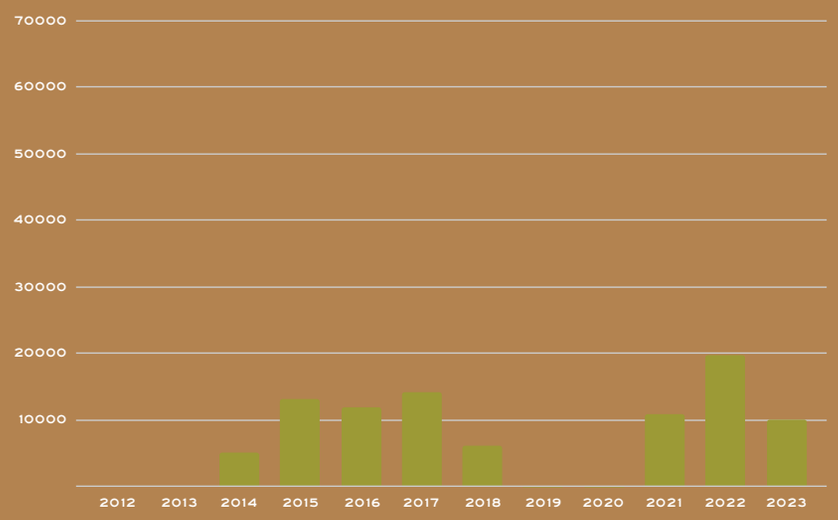
As of 2019, only MMC and two other buyers remain in Belize (TCGA and Belize Chocolate Company). There wasn't enough cocoa to support many businesses, and there wasn't enough demand on the craft-chocolate side to buy cocoa at the temporarily inflated prices. Money spent on expanding cocoa production is not coming back, and other crops that were ignored need to be tended again. Today, MMC pays $3.13 per kilogram dry-weight equivalent for wet beans. This is significantly more for wet beans than farmers around the world typically receive for dried beans, but it's lower than what farmers thought they would make. Farmers bore the brunt of the market collapse.

Unfortunately, as for many of the producers we work with, 2023 brought challenges to Maya Mountain, due to climate change. The region experienced an extra-long rainy season, along with an outbreak of monilia disease — a fungus that causes pods to rot, and whose spores are easily spread via the wind. Both issues caused lower production than normal.

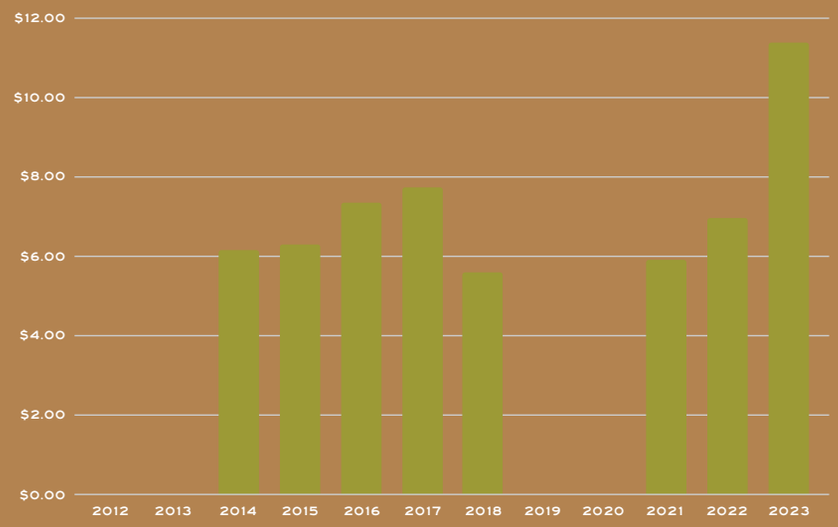
In spite of the recent setbacks, MMC is now buying more beans than before, and they are following through on projects begun pre-2017, including a demonstration farm. This farm helps educate producers on best practices, and allows them to try out new management techniques such as grafting, or use of different genetics. MMC's post-harvest processing facility is more centrally located and more efficient than it was, making it easier and cheaper for MMC to produce better cocoa, which allows them to buy more. The hard work is paying off: In 2021, for the first time, MMC exported 85 metric tonnes of organic cocoa, and expanded facilities to accommodate the higher production volumes. We are excited to see what the future holds for Maya Mountain Cacao.

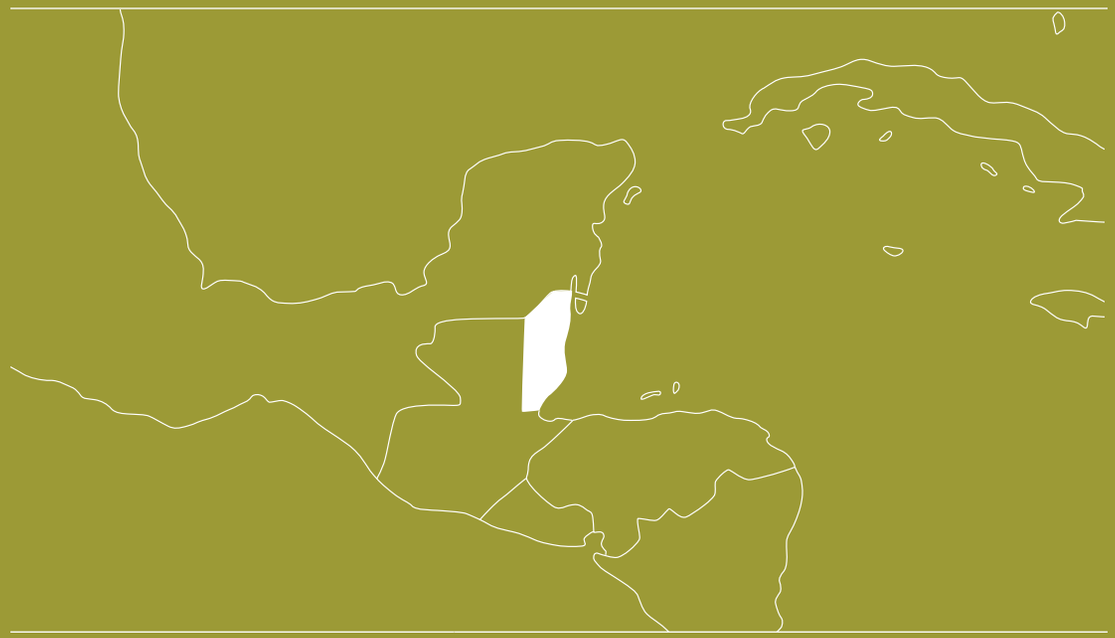
MAYA MOUNTAIN, BELIZE

Quantity Purchased (in Kilograms)



Average Price per Kilogram





16°13'16.2"N 88°55'48.6"W

FERMENTATION STYLE | LINEAR BOXES

DRYING STYLE | RAISED WOODEN BEDS, CEMENT PATIOS, GREENHOUSE

PROFILE BY | TREVOR (U.S.A.) & YUKI (JAPAN)

FLAVOR PROFILE | FRUIT, SWEET AROMATIC, DAIRY

SMALLHOLDER FARMERS GROW BEANS

MAYA MOUNTAIN CACAO BUYS, FEREMENTS, DRIES, & BLENDS BEANS

EXPORT BY MAYA MOUNTAIN CACAO

IMPORT BY UNCOMMON CACAO FOR DANDELION CHOCOLATE

Percentage of total beans purchased from all producers over 2023

6%

MAYA MOUNTAIN, BELIZE

RANSIKI, INDONESIA

Located on the eastern side of West Papua near the town of Manokwari, Ransiki is a small village with an interesting history. What started as a massive corporate farm has transformed into an independent project, driving income and entrepreneurship in the surrounding community.

West Papua is a province on the western, Indonesian half of New Guinea, the second-largest island in the world. (The island's eastern half, and its smaller offshore islands, comprise the separate country of Papua New Guinea).

Indonesia is an incredibly diverse country both in terms of its people and culture, and its nature. In March 2019, the Indonesian government established West Papua as Indonesia's first Conservation Province. Legislation protects the marine and terrestrial ecosystems, promotes sustainable jobs, and recognizes the rights of the region's indigenous people. The village of Ransiki lies in the area of the Arfak mountain range, home of a bird newly identified in 2018 as a unique species — the Vogelkop superb bird-of-paradise.

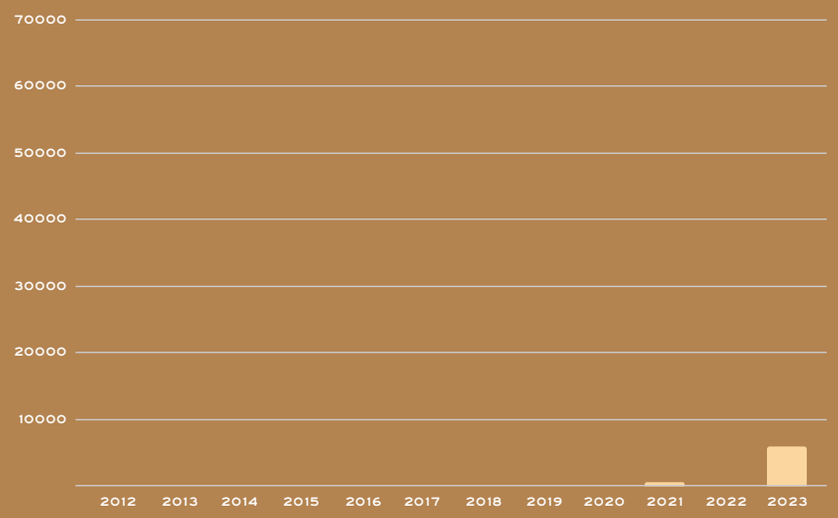
In the late 1970s and early '80s, a number of remote but massive commercial cacao farms were established around the world. One example, in Belize, was Hummingbird Hershey — now an independent operation known as Xibun River Estate. For a number of reasons, Hershey was unable to make the farm work, and it was eventually purchased by a Malaysian business. That business then went bankrupt, and the 1,668-hectare farm lay fallow for years, until the local community began to harvest cacao from trees that were untended but productive.

A similar progression occurred in Indonesia. In 1979, the British Commonwealth Development Corporation (CDC) created a farm of almost 1,800 hectares in Ransiki. At its peak, the farm covered around 1,785 hectares of land and produced over 2,000 tonnes of cocoa. However, after a series of ownership changes and lack of investment, the farm was significantly downsized. In 2017 the cocoa cooperative Eiber Suth — which translates to "Unity to Arise" — was established, and currently employs around 200 local Papuans. They've rehabilitated approximately 200 of the original farm's 1,785 hectares, and plan to tackle another 1,000 hectares as resources are available. In 2019 a collaboration was formed between the cooperative members, the West Papua Provincial Government, the South Manokwari District Government, and Pipiltin Cocoa, to empower the local community through cocoa production.

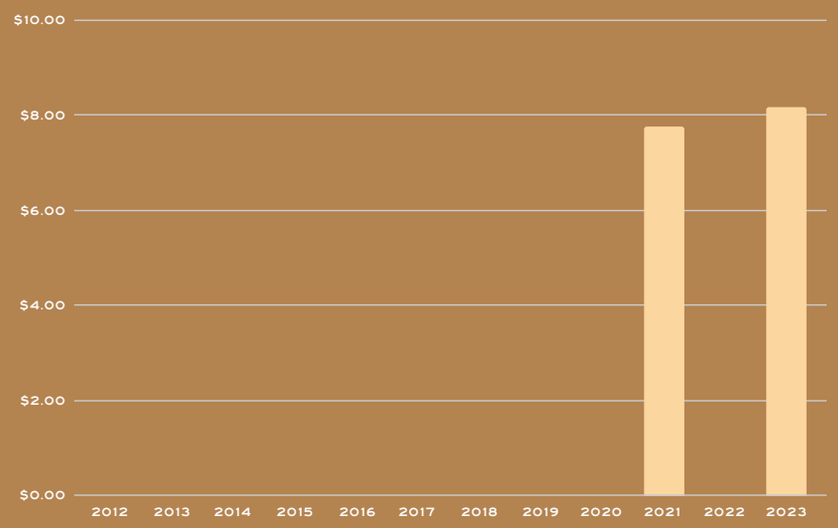
We were first introduced to Ransiki in 2019 by Dejan Borisavljevic of Biji Kakao Trading. Dejan works with Indonesian cocoa producers to bring their beans to makers around the globe, and Greg visited Ransiki in 2022 to meet the team and begin building a connection. Indonesia is known as one of the largest cocoa producers in the world; we are privileged to work with this tiny corner of the country, where Eiber Suth are focused on rehabilitating land, bringing income to the community, and producing some tasty cocoa.

RANSIKI, INDONESIA

Quantity Purchased (in Kilograms)



Average Price per Kilogram



1°30'20.4"S 134°10'36.3"E

FERMENTATION STYLE | LINEAR BOXES

DRYING STYLE | RAISED MESH BEDS, GREENHOUSE

PROFILE BY | TBD

FLAVOR PROFILE | SWEET AROMATIC, CHOCOLATE, SPICE

EIBER SUTH CO-OP GROWS, FERMENTS, & DRIES BEANS

EXPORT BY BIJI KAKAO

IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE

Percentage of total beans purchased from all producers over 2023

3.6%

RANSIKI, INDONESIA

SEMULIKI FOREST, UGANDA

We first met Jeff Steinberg in 2017 when he visited our Valencia Street factory looking to understand more about specialty cocoa. He had just launched Latitude Trade Company (LTC) as a social enterprise and certified B corporation, collaborating with Ugandan smallholder cacao farmers to bring local products to market, and he wanted to learn more about our industry. Fast forward seven years, and LTC now works with over 4,500 smallholder farmers across Uganda, providing training, microfinancing, and insurance, and pays a premium price for the farmers' cocoa. LTC also offers training to farming households, on topics ranging from organic agronomy to financial literacy.

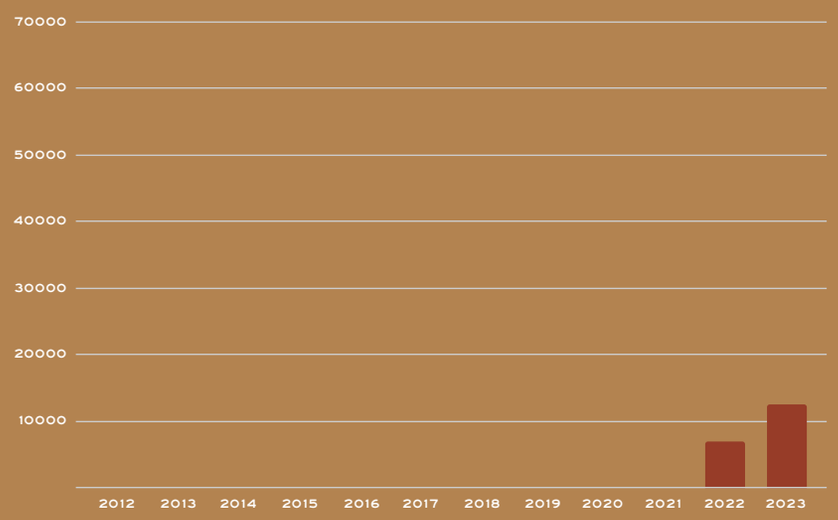
LTC ensures traceability in their supply chain by working directly with farmers, and the LTC field team regularly visits all of the farms they work with. The company has set up over 70 rural collection points operating on scheduled days. Farmers harvest their cacao the morning of their coordinated pick-up day, and deliver it to the designated LTC collection point. At the collection point the cacao is weighed, the farmer is paid, and the bag of wet cacao is sealed and tagged so it can be traced all the way from the farmer, through fermentation and drying, and into the warehouse.

The specific beans we use are cultivated near the towns of Bundibugyo and Kasese in Semuliki Forest, western Uganda, where cacao is grown by roughly 1,000 organically certified regional farmers, of whom 52 percent are women. LTC has just built a new centralized fermentation facility in the village of Kasese, at the base of the hills leading up into the mountains. This provides the right environment for post-harvest processing, while being in convenient proximity to the farms.

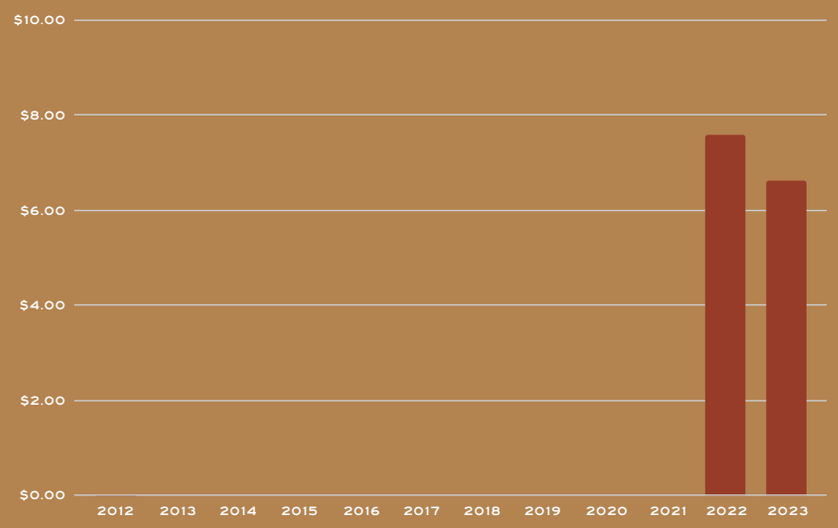
Latitude Trade and their cocoa from Uganda have become mainstays in the craft-chocolate industry. The beans are used by a number of makers throughout the world, including favorites such as SOMA chocolatemaker in Toronto; Fjåk out of Eidfjord, Norway; and Monsoon from Tucson, Arizona. But even once they had good-tasting cocoa, there was one more thing to do: LTC set up their own bean-to-bar chocolate factory and café. The small operation not only brings in additional income, but allows immediate feedback on the flavor and quality of their beans. LTC's chocolate was awarded a bronze medal at the 2017 International Chocolate Awards, and in 2019 their Semuliki Forest cocoa was recognized by Cacao of Excellence as among their "Best 50." If you're in Kampala, you should swing by and tell Jeff we said hi!

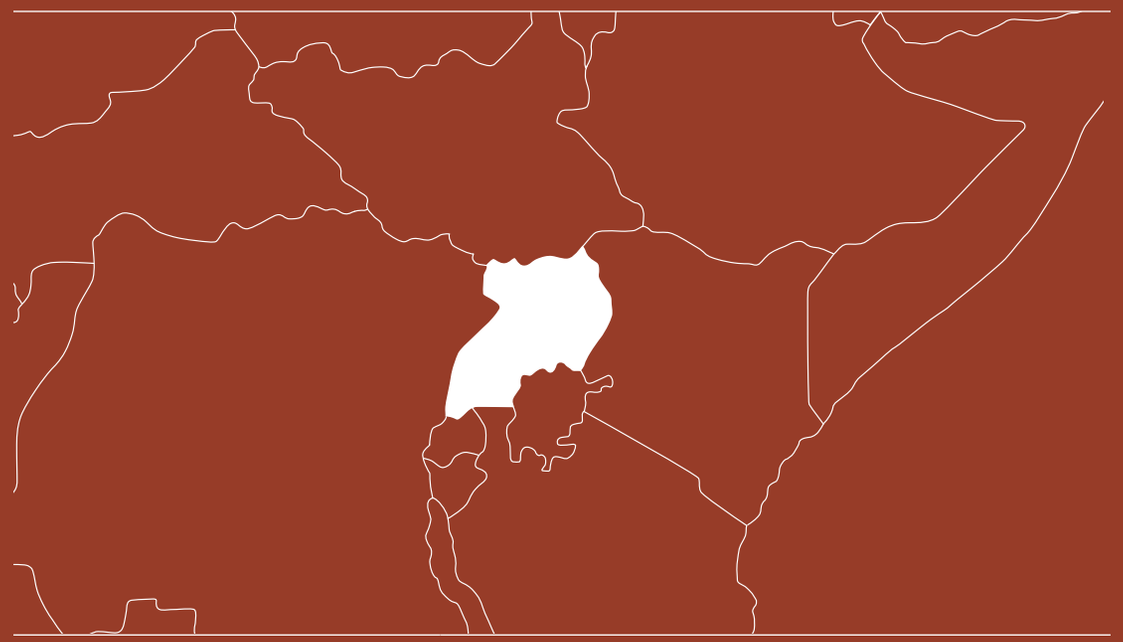
SEMULIKI FOREST, UGANDA

Quantity Purchased (in Kilograms)



Average Price per Kilogram





0° 20' 21.7"N 32° 35' 14.8"E

FERMENTATION STYLE | LINEAR BOXES

DRYING STYLE | RAISED WOODEN BEDS, CEMENT PATIOS, GREENHOUSE

PROFILE BY | TREVOR

FLAVOR PROFILE | FRUIT, DAIRY, SWEET AROMATIC

SMALLHOLDER FARMERS GROW BEANS

LATTITUDE TRADE CO. BUYS, FEREMENTS, DRIES, & BLENDS BEANS

EXPORT BY LATITUDE TRADE CO.

IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE

Percentage of total beans purchased from all producers over 2023

7.5%

SEMULIKI FOREST, UGANDA

TUMACO, COLOMBIA

Cacao Hunters is one of a few Colombian companies producing cocoa and making chocolate within Colombia. They represent an ideal partner, as they are open to innovation and experimentation, which allows them to produce the best cocoa possible. In Tumaco, Cacao Hunters works passionately with farmers tending local cultivars in regions where income generation has been difficult due to recent conflict. Owners Carlos Ignacio Velasco and Mayumi Ogata (a former pastry chef) met in Japan in 2009, and have since been devoted to producing high-quality cocoa in challenging parts of Colombia.

One such region, Tumaco, is a lush area famous for coca production — and infamous for the issues accompanying that crop. Other than coca and cacao, regional sources of income are limited to avocado, açai, and chontaduro (a palm fruit).

Carlos and Mayumi first traveled to Tumaco in 2011 to evaluate the region's potential for good-quality cocoa, and were shown around by contacts within the U.N. They immediately found that farmers wished to eliminate coca, and were interested in cultivating more cacao (due to the region's history with the species). Older cacao varieties domesticated through the previous few centuries had been purchased primarily by Colombian food producer and chocolate manufacturer Casa Luker at relatively low quality standards, and relatively low prices. Initiatives from various development groups existed, but as they focused on productivity rather than on quality, prices matched supply. Seeing this, Carlos and Mayumi decided to focus on improving post-harvest processing, with quality incentives that could greatly improve options for producers.

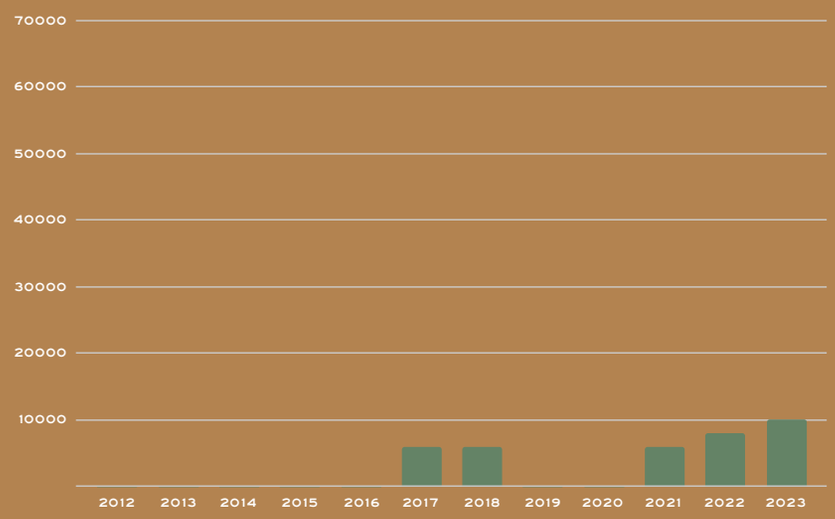
Tumaco generates more than 60 percent of the cocoa used by Cacao Hunters for their own chocolate brand, and the business maintains strong alliances with local producers, supporting families through higher, more stable prices. Cacao Hunters collaborates with a variety of associations in Tumaco; each association ferments their own cacao, benefitted by help and advice from Cacao Hunters. Additionally, with technical assistance from Cacao Hunters, the State Secretariat for Economic Affairs (SECO), a Swiss aid organization, and the United States Agency for International Development (USAID) helped establish post-harvest infrastructure (fermentation and drying facilities), improving cocoa quality and allowing producers to receive a premium price. The quality improvements have paid off, and Cacao Hunters' products can now be found in the best chocolate shops in major Colombian cities.

Cacao Hunters currently seeks ways to invest in Tumaquian producer organizations — through post-harvest-facility investments, working-capital loans, capacity development, and leadership development. In Tumaco, Cacao Hunters' commercial partners are distributed across two Community Councils: Rescate las Varas, and Bajo Mira & Frontera. The councils' base of Afro-Colombian and other farmers have a unique understanding of "cacao baba" (cacao pulp), knowledge which is essential for standardizing centralized processing. In 2021, Cacao Hunters added to their supplier network an association called Afromuvaras — 460 women cocoa producers who have made significant investments in improving their cocoa-processing center, and have benefited from various cooperation projects.

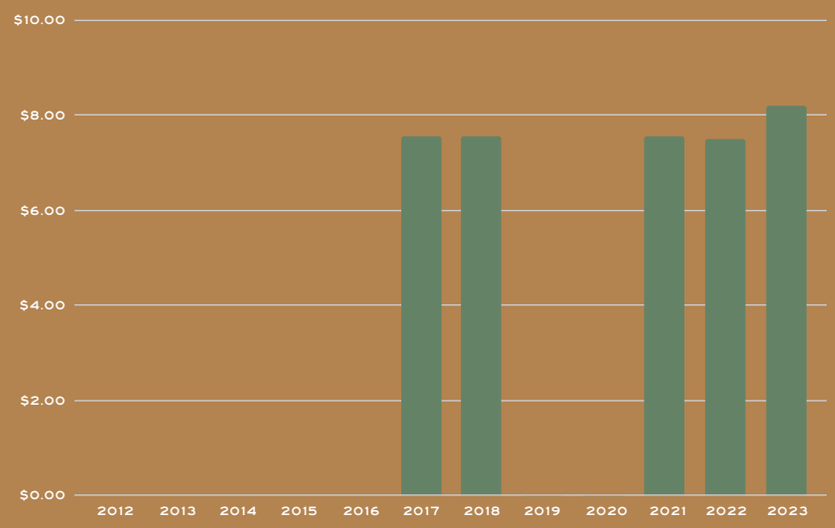
Cacao Hunters does not compromise on quality in favor of quantity, and their contributing producers are equally committed to producing excellent cocoa. Our sincere hope is that sustainable production of high-quality cocoa will succeed in this region for many years to come.

TUMACO, COLOMBIA

Quantity Purchased (in Kilograms)



Average Price per Kilogram



1°40'47.2"N 78°41'03.4"W

FERMENTATION STYLE | LINEAR BOXES

DRYING STYLE | RAISED WOODEN BEDS, GREENHOUSE

PROFILE BY | PABLO

FLAVOR PROFILE | SWEET AROMATIC, CHOCOLATE, DAIRY, NUT

SMALLHOLDER FARMERS GROW BEANS

MULTIPLE CO-OPS BUY, FERMENT, & DRY BEANS

CACAO HUNTERS BLENDS BEANS

EXPORT BY CACAO HUNTERS

IMPORT BY UNCOMMON CACAO FOR DANDELION CHOCOLATE

Percentage of total beans purchased from all producers over 2023

6%

TUMACO, COLOMBIA

WAMPU, HONDURAS

UNESCO recognizes 686 biosphere reserves in 122 countries, including 130 sites in 21 countries in Latin America and the Caribbean. Just across the Patuca River from the village of Wampusirpi (also known as Wampu), the Río Plátano Biosphere Reserve in Gracias a Dios, Honduras measures 832,032 hectares, and is part of the largest remaining Latin American tropical rainforest outside the Amazon. It harbors 130 species of mammals, as well as 36 percent of the reptile species, 57 percent of bird species, and 70 percent of fish species found in Honduras — including the endangered jaguar and scarlet macaw, and critically endangered great green macaw. Ethnic Garifuna, Miskito, Tawahka, and Pech groups live and share in the Reserve; the region is home to approximately 2,000 families who depend upon natural resources for their livelihoods, and for whom local economic opportunities are critically limited.

Today, the Reserve faces constant pressure from the threat of illegal logging and subsequent conversion of land to cattle-ranching pasture. Cacao can help. Historical and archeological evidence indicates that cacao has been cultivated in this part of Honduras for hundreds, maybe thousands, of years. In order to produce cocoa suitable for making outstanding chocolate, producers here must overcome substantial challenges. The region is so hot, humid, and remote that not only fermentation and drying, but even transportation, are extremely difficult. To reach Wampusirpi, travelers must either take a tiny, private, four-person plane, or drive to Palestina, in Olancho, and spend two days traveling the Patuca River in a pipante (a kind of hollowed-out log canoe).

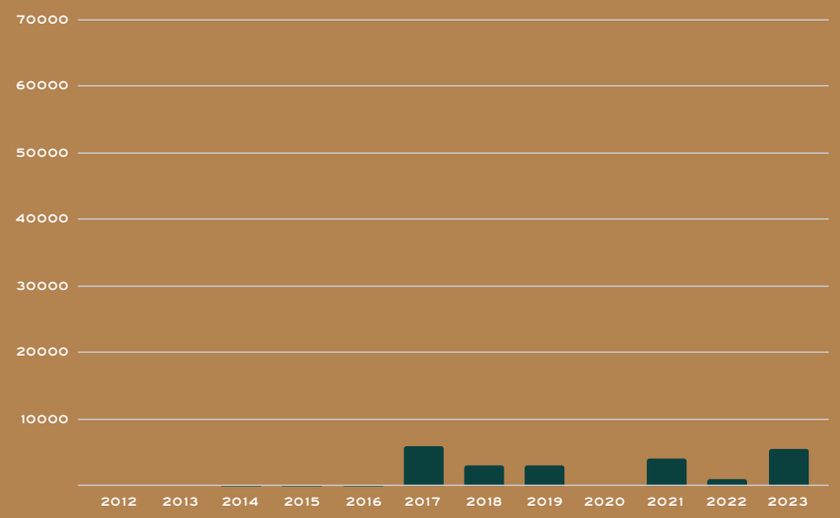
In 2014, a company called Cacao Direct began working with approximately 200 Miskito families, providing them with technical assistance, training, information, and tools at cost, for planting and maintaining their cacao trees. The cacao is cultivated organically by individual farmers and families, then fermented and dried at a centralized facility built by Cacao Direct in 2015 to ensure consistent quality.

In 2022 Cacao Direct was purchased by its general manager, Florentino Portales, and rebranded as Cacao Miskito. Because the team remains mostly intact, they are able to produce the same quality of beans as before. Producing cocoa in Wampusirpi is no small feat, and in 2023 there were enormous challenges at Cacao Miskito: Several cacao plots were lost to fire, and the company warehouse was broken into and a large quantity of beans stolen. Additionally, climate change has been affecting rain patterns in the area, which in turn affects yields.

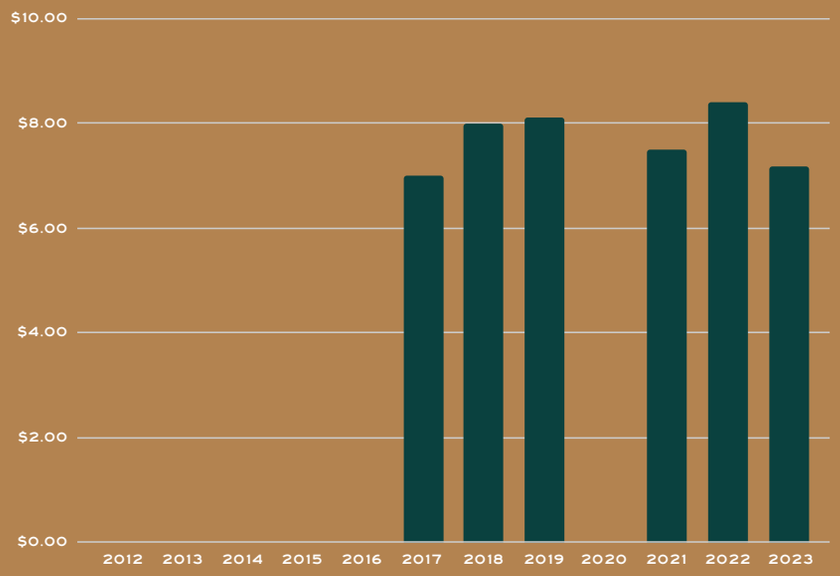
Cacao Miskito has the support of both Uncommon Cacao and the American Bird Conservancy. We're happy to be able to continue working with Florentino and his team, especially as we understand how difficult it can be to overcome substantial setbacks. Sadly, similar challenges are faced by cocoa producers all over the world; Cacao Miskito's future is a bit uncertain, but we know they are doing their best to succeed.

WAMPU, HONDURAS

Quantity Purchased (in Kilograms)



Average Price per Kilogram



15°08'55.7"N 84°37'18.2"W

FERMENTATION STYLE | LINEAR BOXES

DRYING STYLE | RAISED WOODEN BEDS, GREENHOUSE

PROFILE BY | RICHARD (U.S.A.) & SENNA (JAPAN)

FLAVOR PROFILE | CHOCOLATE, SWEET AROMATIC, DAIRY, NUT

SMALLHOLDER FARMERS GROW BEANS

CACAO MISKITO BUYS, FERMENTS, DRIES, & BLENDS BEANS

EXPORT BY BENEFICIO DE EXPORTACION DE OCCIDENTE (BEO)

IMPORT BY UNCOMMON CACAO FOR DANDELION CHOCOLATE

Percentage of total beans purchased from all producers over 2023

3.3%

ZORZAL CACAO, DOMINICAN REPUBLIC

Dr. Charles (Chuck) Kerchner co-founded Reserva Zorzal in 2012, hoping to prove that a for-profit business could be a viable, economically sustainable driver of environmental conservation. Chuck and his co-founders bought a relatively undeveloped 412-hectare piece of land in the mountains of Duarte Province, Dominican Republic. They subdivided land within Reserva Zorzal (a bird sanctuary) to create Zorzal Estate (a farm) to protect critical habitat while growing high-quality cacao. Their business, Zorzal Cacao, processes Estate-grown cacao on site, and sells it under the name "Zorzal Estate." After establishing the Estate's post-harvest facility in 2016, the co-founders launched a second operation to buy and ferment freshly harvested beans from neighboring farms, and sell them under the title "Zorzal Comunitario." This meant better use of their facilities, while also engaging with the wider farming community.

Zorzal Cacao has grown since Chuck first visited us in 2013. In 2018, Zorzal Cacao moved their post-harvest processing facilities to Los Arroyos, near San Francisco de Macorís, the epicenter of Dominican Republic's cocoa production; the new "fermentorium" is better situated for transport, and for climate control during bean drying.

While Zorzal Cacao's efforts are focused primarily on land preservation and cocoa production, they also address reforestation of the Dominican Republic. Reforestation is implemented through a carbon-offset program, which pays farmers annually to set aside a portion of their land to grow local trees. To fund the program, chocolate makers who buy from Zorzal Cacao can purchase $200 worth of carbon credits for each tonne of cocoa. To date, 80 hectares of trees have been planted and protected, including a portion of land within Reserva Zorzal. In total, Zorzal Cacao and partnering organizations have protected 1,238 hectares of threatened rainforest in the northeast Dominican Republic since 2012.

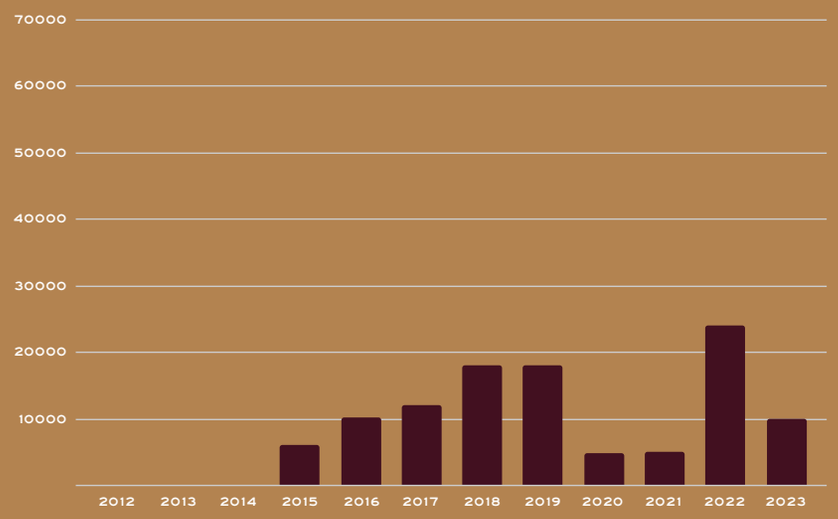
The Zorzal team guards the Reserve's biodiversity, notably in the sanctuary protecting habitat of the Bicknell's thrush, an endangered migratory bird species. Zorzal's protection of local birds led them to work closely with the Smithsonian's National Zoo and Conservation Biology Institute (NZCBI), which expanded its Bird Friendly certification program — previously focused on coffee — to include standards for cacao farming. In 2023, Zorzal Cacao was recognized for producing the first Bird Friendly Certified Cocoa in the world!

NZCBI offers the only certification guaranteeing that 100 percent of cocoa produced comes from farms that protect birds and other wildlife by structuring farmland with an agroforestry model. Zorzal's farming practices met strict environmental criteria, developed by NZCBI scientists, to assess tree-canopy cover, tree height, organic certification, and more. Over 70 percent of Zorzal's 412-hectare Reserve is designated "forever wild": Forest is fully preserved, and will not be used for agriculture or other development.

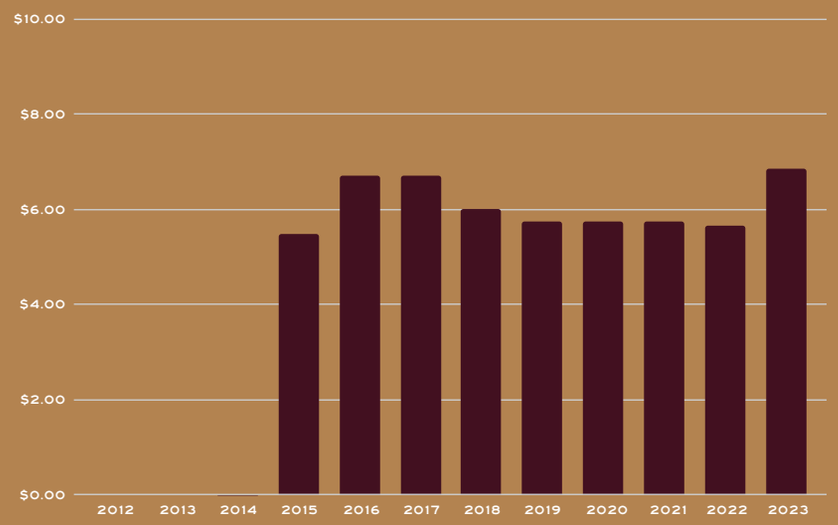
We're honored to be among the first participants in the Smithsonian Bird Friendly certified chocolate program. Public funds can be hard to procure for conservation. Zorzal Cacao demonstrates how the private sector can partner in sustainable cocoa production, and in habitat protection for birds and other wildlife.

ZORZAL CACAO, DOMINICAN REPUBLIC

Quantity Purchased (in Kilograms)



Average Price per Kilogram



19°21'20.4"N 70°15'53.7"W

FERMENTATION STYLE | 4-TIER BOXES

DRYING STYLE | RAISED MESH BEDS, CEMENT PATIOS, GREENHOUSE

PROFILES BY | TREVOR (U.S.A.) & MARI (JAPAN)

FLAVOR PROFILE | DAIRY, CHOCOLATE, FRUIT, HERBACEOUS

SMALLHOLDER FARMERS GROW BEANS

ZORZAL CACAO BUYS, FEREMENTS, DRIES, & BLENDS BEANS

EXPORT BY CACAO DEL BOSQUE

IMPORT BY CACAO LATITUDES FOR DANDELION CHOCOLATE

Percentage of total beans purchased from all producers over 2023

6%

ZORZAL CACAO, DOMINICAN REPUBLIC

GLOSSARY

CACAO | COCOA
According to most dictionaries, *cacao* and *cocoa* are interchangeable. People often use the word *cacao* when referring to botany or agriculture; and *cocoa* for cocoa powder (fermented, dried, roasted, finely crushed beans, with most of the natural fat [cocoa butter] removed), or beans (usually after fermentation and roasting). We use ***cacao*** to refer to trees, leaves, pods, and raw (unfermented) seeds; and ***cocoa*** to refer to fermented seeds, which are a product. The transformation takes place during **fermentation**, which kills the beans' cotyledons.

CACAO FARMER | PRODUCER
We use the term "cacao farmer" to refer to someone who is involved in the agricultural production of cacao, including planting, growing, and harvesting. Cacao farmers often ferment and dry their own beans, but we would not refer to someone as a cacao farmer if he or she solely *processed* (fermented and dried) beans procured from someone else; we'd call that person a producer.

CENTRALIZED FERMENTARY
A processing facility that collects wet cacao beans from multiple farmers to ferment in one location.

COCOA BEAN | CACAO BEAN
The bitter, purplish seed of the *Theobroma cacao* tree. To make chocolate, the seeds are extracted from the cacao pod after harvest, then fermented and dried before they undergo a chocolate-making process. We call the wet, unfermented seeds *wet cacao beans*; and the fermented, dried seeds — before and after roasting — *cocoa beans*.

COCOA NIB
Small piece of a cacao seed cotyledon, *after* the seed is fermented, dried, roasted, cracked, and winnowed; the primary ingredient in chocolate.

COOPERATIVE OR CO-OP
An enterprise that is collectively owned and democratically controlled by its members. The structure is designed to meet the common economic, social, political, and cultural needs of the member population, and often involves sharing resources, materials, and skills.

DRY BEANS
Cocoa beans that have been fermented and dried.

DRY WEIGHT EQUIVALENT (DWE)
A term used to refer to prices of wet beans for what they will eventually be worth as dry beans. Wet beans tend to weigh approximately three times more than dry beans. For instance, if farmers are getting paid $3/kg DWE, that would mean they are actually getting paid $1/kg of wet beans, as once a kilogram of beans dries, it will weigh only approximately 0.33 kg.

FERMENTATION
In reference to cocoa beans, fermentation is the process of transforming the compounds within the seeds — usually accomplished by gathering freshly harvested seeds together, typically in a wooden box that may be lined or covered with banana leaves, for about three to seven days. During this time, bacteria and yeast transform the sugars in the pulp surrounding the seeds into acids that change the compounds inside the seeds, establishing the precursors to chocolate flavor as we know it. Fermentation has a substantial impact on the final flavor of a cocoa bean.

GRAFT
A small branch of a mother tree that is inserted onto an established seedling or mature tree. It allows clones of a tree to be used to create identical genetics across a farm.

HECTARE
One hectare is approximately 2.5 acres.

HUSK
The cocoa bean's fibrous outer shell that protects the nib inside. To make chocolate, beans' husks are removed before the nibs are ground.

LINEAR BOXES
Fermentation boxes arranged side by side at ground level. Beans are shoveled from one box to the other every day or two until fermentation is complete.

METRIC TONNE
1,000 kilograms or 2,205 pounds.

ORGANIC
While standards for organic certification differ from country to country, the word generally indicates cultivation practices that are free of pesticides and chemical fertilizers, and usually adhere to high standards of animal husbandry, biodiversity preservation, and minimal waste.

TIERED BOXES
Fermentation boxes arranged vertically, like steps. Beans are rotated from step to step every couple of days.

WET BEANS
Cacao beans, still covered in pulp, that have been harvested and separated from the cacao pod in preparation for fermentation.