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 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.
We strive to work directly with the producers who grow, ferment, and dry the cocoa we buy. We travel to origin 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

2019 through 2020 started off great! We were on track to buy more beans over the course of these two years than we ever had before. Then in March of 2020, as we were in the midst of our first-ever Craft Chocolate Experience — a festival to celebrate craft chocolate with our fellow chocolate makers, chefs, cocoa producers, and chocolate-loving consumers — we got word that San Francisco was sheltering in place for three weeks due to COVID. At the time, we naively thought we’d sit at home for a few weeks (eating chocolate and ramen — not always together), and then we’d go back to buying beans and making delicious chocolate. As you’re likely aware, it didn’t exactly go that way. We quickly had to shift the way we do business and the way we make chocolate. Our small but mighty team of amazing chocolate makers came in to the factory on their own, while the rest of us hunkered down at home and edited plans, developed new online Chocolate Experiences, and came up with new ways to get chocolate into the hands of our devoted guests and customers.

It’s impossible to talk about anything in relation to 2020 without talking about the pandemic, but before we dive into that I think it’s worth talking about 2019. 2019 was a really notable year for Dandelion Chocolate, as we finally opened our new, larger factory at 16th Street! This meant that we could start making bars on a tempering line (which means more consistency and less work), and we could introduce baking chips, which made our chocolate available for a whole new segment of use! We also opened our first permanent shop in the U.S. outside of California, at The Venetian in Las Vegas. From a sourcing perspective, 2019 was the setup that would allow us to start buying larger quantities of beans, which is good for Dandelion and also good for the producers with whom we work. Our goal has always been to be as consistent a partner as possible, and 2019 felt like we were finally going to get there. Then along came 2020.

As one of the owners of Dandelion Chocolate, I’m always concerned about our team and the viability of our business, but as the Bean Sourcerer, I’m equally concerned with our cocoa-producing partners. The pandemic brought an enormous amount of uncertainty to everyone, but the further away a business was from end customers, the more uncertainty the pandemic caused. At Dandelion, we didn’t know how, if, or when we’d be able to make chocolate, or if anyone would buy it! People were hoarding toilet paper, not craft chocolate. Money was very tight, and our primary sales channel has always been our dedicated retail stores, and they were closed. All of that uncertainty in production and sales turned into uncertainty in buying cocoa. Dandelion always kept approximately one year’s worth of beans on hand just in case something catastrophic happened. Something catastrophic did happen and while we had beans to make chocolate for a while, we wanted to be a good partner as well.

It’s probably worth getting into the finances of how cocoa is produced. It might seem that growing a product means all of the capital goes into planting the trees and the rest is just money that comes in; sadly, it doesn’t work that way. Cocoa farmers do need to spend money planting trees at the beginning, but for every harvest there are many costs they need to cover before they finally sell their beans. These include paying people to help harvest, paying for supplies, paying up front if they buy wet beans, etc. You might know all of this as “working capital.” Every business has it, but for seasonal businesses in which there is a larger harvest and then a larger sale, the working capital needed is, well, larger.

At a chocolate factory you can buy your beans and sugar and about a month or so later have a chocolate bar to sell to pay for those ingredients, then get into a cycle, and the money you’re making pays for what you need to buy, and for your space, and your team.
This cycle is hard for small farms to achieve as they are only selling beans a few times a year, but need to pay for things on the farm all the time. This is relevant to the pandemic because when business more or less stopped, many cocoa producers had already spent a lot of money to get ready for sales that were now in question. We decided that, even without much money at our disposal, the best thing we could do is talk to all the producers we had planned to buy from and see who had spent money on getting our deliveries ready. In some cases, the beans were on ships or had even reached the U.S. So the beans you see cited here that we bought in 2020 were the ones that were already in progress.

Now here’s the interesting part. As 2020 started to come to a close, it turned out that people did want to buy chocolate! They mostly bought it online, but that just meant we needed to create a better online experience for our customers. The cocoa producers I spoke with were having the same challenge we were having: If they had a product to sell, people were buying it; the hard part was producing the product itself and getting it to customers. The majority of the producers we work with figured it out and made it through. I hope and believe that future sourcing reports will feature the same producers and show how much they’ve grown. 2020 was a challenging year in every way imaginable, but we are looking forward to the future and are happy we are still here to bring you this report.
Now that we have been purchasing cocoa for a number of years, there is enough data to be interesting in aggregate. This graph shows all of the substantial purchases we’ve made over the years. All origins that we no longer use are lumped together, and every other origin is broken out per year.

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. Products get better, cost of living increases, and therefore the prices we pay should increase over time.
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.

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2019 AVERAGE PRICE PER METRIC TON $6,982

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2019 AVERAGE PRICE PER METRIC TON $6,887
AMBANJA, MADAGASCAR

- Profile by: Nate
- Flavor notes: Mango Lassi, Chocolate Mousse
- Fermentation style: 4-tier boxes
- Drying style: Raised wooden beds, cement patios

Akeesson's Organic Estate grows, ferments, & dries beans
Export by: Akeesson's Organic Estate
Import by: Dandelion Chocolate

Quantity Purchased (in kg)

Average Price per kg
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.

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 “chocolaty.” 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 complex flavors. Bertil was the first to take this risk. We look forward to continuing our relationship with Bertil, and 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.
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 Anamalai in Tamil Nadu. 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 using the Korean Natural Farming System to help enrich the soil with indigenous microorganisms. It's a system of 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 to see their operation “en route” to Tanzania. Greg was blown away by the high level of attention to detail on the farm, but noted that the fermentation process still needed improvements.

After the initial 2015 visit, Dandelion Chocolate and Meridian Cacao teamed up to support Dan O’Doherty, a fermentation expert with Cacao Services, to travel to Regal Plantations in June 2016 to help the 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 the nutmeg produced on their land in a 2019 fermentation experiment, resulting in some really 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.
CAHABÓN, GUATEMALA

PROFILE BY | ELMAN (US)/ YUTO (JAPAN)  
FLAVOR NOTES | CHOCOLATE PUDDING, AMARENA CHERRY, ESPRESSO
FERMENTATION STYLE | LINEAR TWO-BOX  
DRYING STYLE | RAISED MESH BEDS WITH GREENHOUSE

ADIOESMAC (CO-OP)  
GROWS, FERMENTS,  
& DRIES BEANS

CACAO VERAPAZ  
BUYS & BLENDS BEANS

EXPORT BY  
CACAO VERAPAZ

IMPORT BY  
UNCOMMON CACAO

Quantity Purchased (in kg)

Average Price per kg

$0.00
$2.00
$4.00
$6.00
Since 2014, we have been purchasing beans from ADIOESMAC (the Asociación de Desarrollo Integral Ox’ Eek Santa María Cahabón) through Cacao Verapaz S.A., a social enterprise and export group that works primarily with indigenous Maya farmers in the Alta Verapaz department of northern Guatemala. In the Cahabón region of Alta Verapaz, one of the poorest sections of the country, Cacao Verapaz offers technical support and processing-technique training to the farming families comprising ADIOESMAC, which allows the farmers to sell finished beans at a higher price than they could with their old practice of selling unfermented beans.

Cocoa is a promising source of income for the community. The reputation of cocoa from the area has continued to grow and production has steadily risen in recent years. 2017 saw the construction of a new fermentation and drying facility financed by the government’s Rural Development Program of the North (PRODENORTE) and the International Fund for Agricultural Development. This significant investment in the Tzalamtun community of Cahabón is due to the region’s recognized cocoa-producing potential.

Some believe that Guatemala is the birthplace of cacao, which fuels a desire for development in this sector. Cacao Verapaz’s role in the country since 2013 (and with ADIOESMAC since 2014) has ensured more stable payments to producers, and connected them to international markets where their high-quality cocoa can garner higher prices. The additional income has provided capital resources for further development. Cacao Verapaz also offers support in the form of working capital so that ADIOESMAC can pay farmers on time for their wet cacao deliveries, and provide cacao sacks and GrainPro bags for storage to ensure that fermented, dried cocoa is not damaged.

Dandelion Chocolate has been buying beans from ADIOESMAC through Cacao Verapaz since 2014, and the commitment of the Association and Cacao Verapaz to high-quality cocoa is evident. Dandelion was ADIOESMAC’s first international market partner, and we feel proud to have played a key role in growing the cocoa industry in this historically important and underserved region.
CAMINO VERDE, ECUADOR

PROFILE BY | ERIC (US)/AIJI (JAPAN)

FLAVOR NOTES | FUDGE BROWNIES, CARAMEL, MILK

FERMENTATION STYLE | INOCULATED, STACKED BAGS
DRYING STYLE | CEMENT PATIOS

SMALL-HOLDER FARMERS GROW BEANS
CAMINO VERDE FERMENTS & DRIED BEANS
EXPORT BY AGROARRIBA
IMPORT BY MERIDIAN CACAO

Quantity Purchased (in kg)

Average Price per kg

36
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 70% chocolate, which we use in nearly all of our drinks and many of our pastries at our cafés in the U.S.

Camino Verde’s base of operations is in Duran (near Guayaquil), where Vicente ferments and dries beans, and runs a full chocolate factory where he co-manufactures chocolate for multiple makers. Making chocolate in his own factory means that Vicente has the capacity to develop specific flavor profiles for customers, tweaking his own process and getting instant, direct feedback about what various cocoas taste like as chocolate. He buys freshly harvested, unfermented beans from over 100 farmers and associations around Ecuador, searching out beans that best represent the uniqueness of cacao in Ecuador. Working successfully with beans from all over the country means constantly learning new things about fermentation. For instance, cacao grown at a high altitude may not ferment in the same way as cacao grown at sea level. Each 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 from Los Ríos, in central Ecuador, and Esmeraldas, in the 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 excited 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 any other single producer, and we couldn’t be happier with that decision.
## Costa Esmeraldas, Ecuador

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**Profile by:** Eric

**Flavor Notes:** Molasses, chocolate pudding, blueberry

**Fermentation Style:** 5-tiered boxes

**Drying Style:** Raised mesh beds cement patio greenhouse

Costa Esmeraldas grows, ferments, & dries beans

Export by Costa Esmeraldas

Import by Dandelion Chocolate

- Quantity Purchased (in kg)
- Average Price per kg

Profile by Eric

Flavor Notes: Molasses, chocolate pudding, blueberry

Fermentation Style: 5-tiered boxes

Drying Style: Raised mesh beds cement patio greenhouse

Costa Esmeraldas grows, ferments, & dries beans

Export by Costa Esmeraldas

Import by Dandelion Chocolate

- Quantity Purchased (in kg)
- Average Price per kg
Costa Esmeraldas’ Freddy Salazar produces fascinating and unique cocoa that we make into one of our best-selling 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. 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 cacao 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 cultivation advice 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 started 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 to 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.
## Hacienda Azul, Costa Rica

**Profile by:** Ryan (US)/Mariko & Ozaki (Japan)

**Flavor Notes:** Chocolate Almond Biscotti, Caramel

**Fermentation Style:** 5-tiered boxes

**Drying Style:** Raised mesh beds with greenhouse

### Hacienda Azul Grows, Ferments, & Dries Beans

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</table>
In 2017 we began working with Eric Sharvelle of Buena Nota Imports, and with Wilfred Zeuner, who runs Hacienda Azul, a single-estate cacao farm located near Turrialba, Costa Rica. Nearly half the estate’s 87 hectares are planted with cacao sown over the last 10 years, and the most recent plantings thrive in the shade of Mexican cedar trees. The estate is a truly beautiful piece of land on which a river bisects gently sloping hills, making the property perfect for growing cacao.

Wilfred’s estate embodies the application of 30 years of cacao research by CATIE (The Tropical Agricultural Research and Higher Education Center). Meticulously breeding cacao cultivars to achieve disease resistance and high, good-quality yields, CATIE put together a set of six cultivars (known as CATIE-R1, CATIE-R4, CATIE-R6, CC-187, ICS-95 T1, and PMCT-58) selected to increase Central American cacao quality and productivity, thanks to the trees’ hardiness and ability to cross-pollinate effectively. In brief, these cultivars are clones produced by a variety of crossbreeding experiments. The resulting trees are not genetically modified (a.k.a. “GMO”), but selected and cultivated to strengthen specific characteristics. Wilfred chose to work with all six cultivars and has seen excellent results.

On the farm, Wilfred and his team’s attention to detail extends to their processing setup. The cacao trees grow on sloped hills, so during harvest, pods are cut from the trees, then rolled to the bottom of each hill for collection by tractor. This approach improves efficiency and removes the labor of carrying heavy sacks of pods.

The system for cracking pods has also been upgraded, separated into a series of efficient steps. First, the pods are cracked on an angle iron embedded in a block of wood, and tossed onto a mesh bed. Next, someone at the mesh bed scoops the beans from each pod and collects them in buckets, from which they are poured into fermentation boxes. Wilfred then ferments the beans in a five-tiered fermentation setup, after which they are moved into a greenhouse-enclosed drying facility outfitted with mobile racks small enough for all of the beans to be turned by hand. By hand-turning beans rather than raking them, workers can see and remove any imperfect beans, so only the best beans are bagged and sent to customers.

Every step of Hacienda Azul’s process is performed with care and attention, similarly to how we make chocolate at Dandelion. Consistent, high-quality beans become consistent, high-quality chocolate. It is invigorating to work with people who share our commitment to crafting an outstanding product, and we hope you enjoy the results in the bars we make.
KOKOA KAMILI, TANZANIA

PROFILE BY | ELISHA (US)
FLAVOR NOTES | STRAWBERRY LEMONADE, CREAM, FUDGE
FERMENTATION STYLE | 3-TIERED BOXES
DRIYING STYLE | RAISED WOODEN BEDS

SMALL-HOLDER FARMERS GROW BEANS
KOKOA KAMILI FERMENTS & DRIES BEANS
EXPORT BY KOKOA KAMILI
IMPORT BY MERIDIAN CACAO

Quantity Purchased (in kg)

Average Price per kg

PROFILE BY | ELISHA (US)
FLAVOR NOTES | STRAWBERRY LEMONADE, CREAM, FUDGE
FERMENTATION STYLE | 3-TIERED BOXES
DRIYING STYLE | RAISED WOODEN BEDS

SMALL-HOLDER FARMERS GROW BEANS
KOKOA KAMILI FERMENTS & DRIES BEANS
EXPORT BY KOKOA KAMILI
IMPORT BY MERIDIAN CACAO

Quantity Purchased (in kg)

Average Price per kg
Brian LoBue and Simran Bindra of Kokoa Kamili 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 works with over 4,000 farmers in Tanzania, buying wet beans, then fermenting and drying them in a centralized facility. By consistently controlling and enhancing quality in this way, they produce an outstanding cocoa bean, are able to garner a premium price, and are a large supplier 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, they are planning a new facility that includes a permanent drying space (as opposed to mobile drying beds), a nursery to grow seedlings for the farmers with whom they work, and a demonstration farm for farmer education. Kokoa Kamili’s production continues to expand with new buyers every year. Despite this production growth, quality remains high and the price 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!
VALE POTUMUJÚ, BRAZIL

PROFILE BY | RENEE (US)
FLAVOR NOTES | ORANGE BLOSSOM HONEY, CHOCOLATE ICE CREAM, NUTS

FERMENTATION STYLE | LINEAR BOXES
DRYING STYLE | RAISED WOODEN BEDS WITH GREENHOUSE

PRIME CACAO GROWS, FERMENTS & DRIES BEANS
EXPORT BY PRIME CACAO
IMPORT BY DANDELION CHOCOLATE

Quantity Purchased (in kg)

10000
20000
30000
40000

Average Price per kg

$0.00
$2.00
$4.00
$6.00
$8.00

We spent years searching for the right cocoa partners in Brazil, and in 2016 finally met Juliana and Tuta Aquino from Bahia, the largest cocoa-producing state in Brazil. Prior to crop devastation by a cacao disease called Witches’ Broom in the late 1980’s, Brazil produced a large portion of the world’s cocoa. Over the last two decades, the industry recovered and a new specialty-cocoa market emerged as Brazilians began to enjoy craft chocolate. Now Tuta and Juliana are among a number of local “tree-to-bar” producers who grow cacao, harvest and ferment beans, then make their own chocolate. The tight tree-to-bar-production feedback cycle rapidly improves cocoa quality.

Tuta and Juliana have a deep love for cocoa. They grew up on cacao farms in Bahia, then left to pursue successful careers in the music industry — Juliana is an accomplished bossa nova singer and Tuta is a music editor and engineer. Despite their successes in music, they returned to Bahia several years ago to cultivate and process cacao on Juliana’s family farm. They renamed the farm Vale Potumujú (“vale” is valley and “potumujú” is a type of tree in Brazil), and refurbished operations to achieve excellent bean fermentation, with an eye toward sustainability.

Tuta and Juliana follow a Brazilian system called “Cabruca,” used to preserve existing rainforests wherever possible while growing cacao underneath. They also hired Dan O’Doherty (who has worked with Costa Esmeraldas, Maya Mountain, Regal Plantations, and many others) to help them develop a world-class fermentation and drying protocol and facility. The results speak for themselves. In her kitchen, Juliana began making chocolate from the farm’s beans, which led to the creation of Baianí, Vale Potumujú’s own tree-to-bar chocolate brand. Vale Potumujú doesn’t produce very much cocoa, but great relationships and great beans are worth the wait, and after approximately three years, Tuta informed us in 2019 that they finally had enough beans that they could sell us a small quantity. The beans’ quality and flavor come from decades of passion, years of growth, and months of hard work, and we are thrilled to continue our relationship with the Aquinos.
### WAMPU, HONDURAS

**Profile by:** Richard (US)/Chieko (Japan)

**Flavor Notes:** Hot Fudge, Hazelnut, Brown Butter

**Fermentation Style:** Linear Two-Box

**Drying Style:** Greenhouse Design with wooden decks

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**Small-holders grow beans**

**CACAO Direct ferments & dries beans**

**Export by:** CACAO Direct

**Import by:** Dandelion Chocolate
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 reptile species, 57 percent of bird species, and 70 percent of the fish species found in Honduras. 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 on the Patuca River in a pipante (a kind of hollowed-out log canoe). In this remote place, the team at Cacao Direct have been working since 2014 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 Cacao Direct built in 2015 to ensure consistent quality. Their efforts have paid off: Cacao Direct won the Honduras Cocoa of Excellence Competition in 2016 and 2017, enabling them to use the award’s prize money to provide a new roof and windows for the local school. Cacao Direct’s success producing award-winning cocoa in Wampusirpi is no small feat. Other international organizations have repeatedly tried to accomplish the same over the years, but none lasted long enough to make a difference in the community.
ZORZAL, DOMINICAN REPUBLIC

Profile by: Trevor & Janelle (US) / Mari (Japan)

Flavor Notes: Caramel, Chocolate Syrup, Cherry

Fermentation Style: 4-Tiered Boxed

Drying Style: Raised Mesh Beds, with Greenhouse

Zorzal Cacao & Small-Holder Farmers Grow Beans

Zorzal Cacao Ferments & Dries Beans

Export by Cacao del Bosque

Import by Dandelion Chocolate

Quantity Purchased (in kg)

Average Price per kg
Dr. Charles (Chuck) Kerchner co-founded Reserva Zorzal and Zorzal Cacao 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 (Jamie Phillips, Jesus Moreno, Jaimie Moreno, Angelica Moreno, and Sesar Rodriguez) bought a relatively undeveloped 412-hectare piece of land in the mountains of Duarte Province, Dominican Republic. They divided it into Reserva Zorzal (a bird sanctuary) and Zorzal Estate (a farm) to protect critical habitat while growing high-quality cacao. Zorzal Cacao processes and sells Estate-grown cocoa under the name “Zorzal Estate,” and the company also buys and ferments freshly harvested beans from neighboring farms, selling them under the title “Zorzal Comunitario.”

Zorzal Cacao has grown substantially since Chuck first walked into Dandelion’s Valencia Street factory and café in 2013. In Zorzal Cacao’s early days, Chuck used local fermentary Óko Caribe’s infrastructure to ferment Zorzal Estate-grown beans. Then in 2016, Zorzal Cacao built their first post-harvest facility, which allowed them to ferment Zorzal Estate cacao and cacao from surrounding farms on site. In 2018, with an enormous amount of experimentation under their belt, Zorzal Cacao moved their post-harvest processing facilities to a new piece of land better situated for temperature and moisture control during bean drying, and where improved road access makes transport easier. The “fermentorium” is located in Los Arroyos, approximately 10 minutes from San Francisco de Macorís, the bustling epicenter of Dominican Republic’s cocoa production. Also in 2018, Zorzal and Dandelion co-developed an app to capture Zorzal’s bean-collection, fermentation, and drying data. This information has strengthened their understanding of post-harvest processing variables’ impact on flavor.

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 are able to purchase $200 worth of carbon credits for each tonne of cocoa. To date, a total of 80 hectares of trees have been planted through the carbon incentive program, including a portion of land within Reserva Zorzal itself. In total, Zorzal Cacao and partnering organizations have protected 1,238 hectares of threatened rainforest in the northeast Dominican Republic since 2012.

Unlike many of the places we source beans, the Dominican Republic has a thriving national cocoa industry, and Chuck has been able to support staff retention through continual education. Dandelion runs annual customer trips to Zorzal; on these trips, we visit several different cocoa producers, explore Reserva Zorzal, and spend time with the Zorzal team. The best part of working with people around the world is getting to meet in person, learn from each other, and gain new appreciation and understanding of our shared world.
CACAO/COCOA
According to most dictionaries, cacao and cocoa are interchangeable. People usually use the word cacao to refer to cocoa powder or cocoa beans (usually after they have been fermented and roasted) and cacao to refer to the agricultural product. We use the distinction that cacao is plant, and cocoa is a final product. This means the transformation takes place during the fermentation process once the cotyledon is killed.

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 (including fermenting and drying) and handled beans from someone else; we’d call that person a producer. All cacao farmers are producers, but not all producers are cacao farmers.

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

COCOA 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.

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 BEAN
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 3 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.

GLOSSARY

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
1 hectare is approximately 2.5 acres.

HUSK
The fibrous outer shell of the cocoa bean that protects the nib inside. To make chocolate, the husk is removed from the nib 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 TON
1,000 kilograms or 2205 pounds (synonymous with tonne).

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
Cocoa beans still covered in pulp that have been harvested and separated from the cocoa pod in preparation for fermentation.