

# In celebration of 50 years of Cocoa Research



# Introduction

The Cocoa Research Unit commemorated 50 years as a unit and its transformation into the Cocoa Research Centre, in 2012. As part of a year-long celebration, several articles that featured the unit's impact on the cocoa community through its research and outreach activities were published in The UWI Today magazine.

As a souvenir of the 50th anniversary celebrations and to herald a new era for cocoa research at The University of the West Indies in the new Cocoa Research Centre, launched in 2012, we present to you a compilation of the articles.



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**Cocoa Research Centre**



In celebration of 50 years  
of Cocoa Research

Cocoa Research Centre  
The University of the West Indies  
Trinidad and Tobago, W.I.  
2013

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YTEPP Arima/ Maloney winning entry for the drink category of "Innovations of chocolate cuisine"

# New Chocolate Centre

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It's official. The UWI Cocoa Research Unit is a thing of the past, and in its place is the Cocoa Research Centre. The CRC was launched on November 2, as part of the Spirit of Chocolate series of events that have been marking the 50 years since the Cocoa Research Unit emerged from the Cocoa Research Scheme that was born in 1930 under the Imperial College of Agriculture.

The CRC chose the occasion of the launch at the JFK Auditorium to also present their first signature bar, a 70% cocoa rich, dark chocolate that is worth waiting 50 years for. Although the limited first edition was lapped up in no time at all, the CRC plans to enter the business of chocolate production and is currently exploring funding possibilities that its new status as a Centre allows it to pursue.

On that weekend, the CRC also put on a festival, Fête de la cocoa, which featured chocolate sampling, displays, tours, a storytelling session on the CRU's history, games and competitions, including a chocolate muffin eating competition and the amusing "balance cocoa on your head race."



The Cocoa Research Centre's first foray into chocolate making: a bar worth waiting for.



Principal of the St. Augustine Campus, Professor Clement Sankat congratulates Professor Pathmanathan Umaharan, Head of the Cocoa Research Centre at its launch.

Fête de la cocoa, which sought to garner support for the creation of a new cocoa industry, shone light on the long history of cocoa in Trinidad and Tobago and its contribution to the world. It also highlighted the unique place that Trinidad and Tobago's cocoa occupies in the world and cocoa's role in the economic diversification efforts of this country.



# At 50, Fine Cocoa only gets Better

*Cocoa Research Unit upgrades*

BY PROFESSOR PATHMANATHAN UMAHARAN

*Head, CRU*

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After fifty years of existence, the Cocoa Research Unit has had its university status changed and is now a campus centre, henceforth to be known as the Cocoa Research Centre (CRC).

The Unit goes back a long way, if you consider its birth in 1930 as the Cocoa Research Scheme under the Imperial College of Agriculture. In this sense, the Cocoa Research Unit has supported the global cocoa industry for 82 years.

Much of the world's pioneering work on cocoa propagation, shade and nutrition, fermentation, genetics, self-incompatibility system in cocoa, cacao pathology was done at this institution.

The CRC is custodian of the International Cocoa Genebank, Trinidad (ICG,T) regarded as the largest and most diverse collection of cocoa varieties, globally. The collection consists of over 2,400 varieties of cocoa planted in plots of 16 trees in 35 hectares of land.

We have supported research work in plant breeding, pathology, genetics and value addition. We work closely

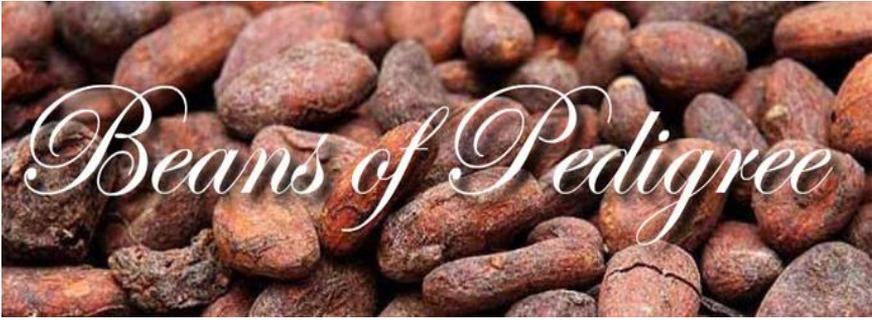
with several chocolate companies such as Cadbury's, Mars, Hershey's, Lindt and Sprungli, Valrhona and Guittard to address contemporary problems.

Current projects include one which deals with cadmium bioaccumulation of cacao, a problem beginning to affect the export of cocoa into Europe, improving resistance to black pod and witches' broom diseases, and improving quality, branding and value addition.



Gina's handmade Chocolate Truffles (utilizing fine flavor cocoa from Trinidad)

Photo: MARK GELLINEAU



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Cocoa was never king in the Caribbean in the way that sugar, with its enormous plantations and masses of slave labourers, once was. Yet local cocoa history is one with a far nobler pedigree.

Ever since the first Spaniards planted the Criollo variety in 1525, and then later the Forastero variety obtained via Venezuela when the Criollo was destroyed in 1727 by what history records as “a blast,” cocoa seemed to develop a special love for this land and it virtually nurtured itself into a hybrid that naturally selected the best qualities of both original stocks into one magnificently structured Trinitario.

So superior was this hybrid that its international stature grew rapidly, and by the early 1800s, Trinidad and Tobago was producing 20% of the world’s cocoa, with only Venezuela and Ecuador ahead of it. What made it such a classic?

The Criollo is full of flavour and the Forastero is hardy and vigorous, says Dr Darin Sukha, a research fellow at the Cocoa Research Unit (CRU) of The University of the

West Indies (UWI). “Trinitario combines the best of both,” and is versatile in cacao breeding programmes because of their “hybrid vigour.”

With this superb strain the cocoa industry took off, with mainly medium and small-holding farmers owning and running their estates, and between 1866 and 1920 it dominated the economy. But everything was about to change.

By then West African nations were producing vast quantities of cocoa, flooding the market. This was followed by the economic depression in the 1920s and increasing sugar prices globally. Locally, the biggest blow came from Witches’ Broom disease in 1928 which hurt the farmers and this was exacerbated when the fledgling petroleum industry began to attract agricultural labour.



Cocoa had established its economic importance, so although production declined, the Cocoa Board of Trinidad and Tobago was set up to try to revive the industry, but it continued slumping further as holdings grew even smaller and labourers, scarcer.

Cocoa lore reveres the rescue story of how Dr F.J. Pound undertook an exhaustive research survey in T&T between 1930 and 1935 and expeditions to Ecuador and the Upper Amazon between 1937 and

1942 to find genotypes resistant to Witches' Broom disease.

This is where The University of the West Indies came in. People forget that its original incarnation was as the Imperial College of Tropical Agriculture, and most don't know that given the prominence of cocoa to the economy of T&T, in 1930, a five-year cocoa research scheme had started, and by 1955 the Regional Research Centre was set up, leading to the establishment of the Cocoa Research Unit in 1963.

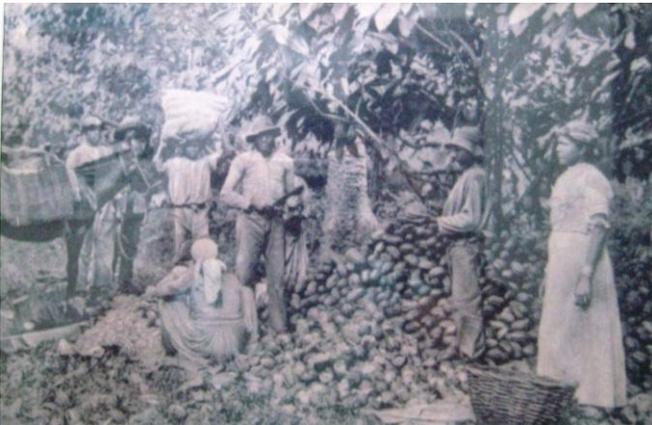
Dr Pound's extensive survey had resulted in the Imperial College Selections planted in the San Juan Estate, Gran Couva, and his expeditions had yielded a collection of germplasm (trees of particular cacao types) planted primarily at Marper Farm, Manzanilla. For years too, the CRU had been conserving cacao germplasm, but they had been planted at various locations around the country.

By 1980, lack of resources and the threat of genetic erosion from competing land use meant that something had to be done urgently. Recognising the international importance of the collections, the European Development Fund provided the resources for all the little collections to be brought together at one properly managed and equipped site, and so the International Cocoa Genebank, Trinidad (ICG, T) was established between 1982 and 1994.

Set up at Centeno at the University Cocoa Research Station, the priceless collection includes 2,300 accessions representing the four major cacao groups (Refractario is the fourth) and clones are added as they become available.

This genebank, managed by the CRU, has been designated by Bioversity International as a “Universal Collection,” one of two such cacao repositories in the public domain.

Old plantation trees, Imperial College Selection (ICS) clones, have been replaced on many farms by newer commercial varieties (Trinidad Selected Hybrids) produced by the Ministry of Agriculture, Land and Marine Resources (MALMR) through the breeding programme pioneered by the late W.E. Freeman. These hybrids have increased resistance to diseases and favourable agronomic traits. The Ministry of Agriculture has considered quality as one of the selection criteria in its breeding programme and its TSH selections and their progenies have been made available to farmers. All of the commercial and superior TSH clones distributed to farmers have also been subjected to sensory analysis at the Cocoa Research Unit.



Removing cocoa beans from pods

# Rebuilding the Cocoa Industry



UWI, St Augustine Principal, Prof Clement Sankat, shakes hands with the Ambassador of the Kingdom of the Netherlands, His Excellency Hans P.P.M. Horbach at the Commissioning Ceremony of the newly laid irrigation system at the International Cocoa Genebank, Trinidad. Looking on are Dr Marcel Vernooij, representative of the Ministry of Agriculture, Nature and Food Quality of the Netherlands (at right); Dr Michelle End of the Cocoa Research Association, UK (third from left) and Prof Dyer Narinesingh, Dean, Faculty of Science and Agriculture (partly hidden). In the foreground is Mr Yunusa Abubakar of the International Cocoa Organisation.

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More than 15 million people in African, Caribbean and Pacific countries are directly involved in cacao cultivation, with approximately 2.5 to three million small-holder cocoa farmers in over 50 countries. The World Cocoa Foundation reported that 40-50 million people depend on cocoa for their livelihood, and in 2008, the International Cocoa Organisation projected that world cocoa production would increase from around 3.7 million tonnes in 2007-2008 to about 4.5 million tonnes in 2012-13 with consumption almost on par. The annual earnings of the global cocoa and chocolate industry are estimated at US\$70 billion.

A ready market exists for all the cocoa Trinidad and Tobago can produce because of its premium quality and lack of restrictive quotas. The reputation of T&T's cocoa as 100% fine or flavour is well-known, and this cocoa is sought by manufacturers of delectable dark chocolates. This is why Trinidad and Tobago's cocoa currently commands between US \$4,500 to \$5,300 per tonne compared to US \$2,300 per tonne paid for bulk cocoa (used to make high-volume chocolate lines).

Yet over the last three decades, cocoa production, exports, acreage under cultivation and farmer participation in T&T have been declining steadily. Approximately 2,000 farmers now grow cocoa locally (compared to 10,000 in 1966). During the last five years, total local production has not exceeded 1.6 million kgs (metric tonnes) per annum. With low cocoa yields (less than 300 kg/ha), production costs were cited as TT\$7-11/kg in 1999. Currently, farmers receive TT\$20/kg for Grade 1 cocoa.

Only 10% of those farmers are between the ages of 20 and 40 while 85% are between 40 and 55. There is a drive to attract



youth to cocoa farming, and to create value-added enterprises based on cocoa. Ten cocoa farmers' groups have been formed nationally with the help of the Cocoa and Coffee Industry Board (CCIB). The groups meet monthly, and are targeted for training by the Cocoa

Stakeholders Committee, which was launched by The Ministry of Agriculture, Land and Marine Resources (MALMR) in May 2008.

Three key Divisions in the MALMR, viz., the Research, Agricultural Services and the Extension Training and Information Services work together to ensure that farmers have access to superior planting material and are informed about recommended practices for growing, harvesting and processing cocoa.

The CCIB was launched by an Act of Parliament in 1961 to “secure the most favourable arrangements for the purchase, sale, handling, grading, exportation and marketing of cocoa as well as coffee for the benefit of the industry.” The CCIB has expanded its role to “encourage cocoa production” in order to continue to attract premium prices and sustain and satisfy the demand for local cocoa. With the Agricultural Development Bank, CCIB has launched The Cocoa Revitalizer Programme, which has financially assisted 246 farmers on a total of 2390 acres.

At the Cocoa Research Unit (CRU), research is ongoing; including studies on diversity assessment, screening for Witches’ Broom and Black Pod disease resistance, germplasm enhancement (pre-breeding) and flavour assessment, among others. The results of the CRU’s various research activities are well documented and have been of enormous value to cocoa researchers worldwide. CRU manages one of the largest and most diverse collections of cacao germplasm in the world, the International Cocoa Genebank, Trinidad (ICG, T). The genetic resources conserved in the ICG, T are actively being used to benefit the local and international cocoa industries.

The CRU's research, coupled with the superior planting material from MALMR, attractive incentive programmes and other efforts of MALMR and CCIB, should encourage existing farmers and stimulate interest in the industry among the youth. It is critical that problems associated with access to capital and land tenure be addressed. This approach will offset the constraints of labour, and the high per capita costs associated with the primary processing of cocoa.



"The reputation of T&T's cocoa as 100% fine or flavour is well-known, and this cocoa is sought by manufacturers of delectable dark chocolates" such as Cocobel chocolates"

With increased production, it will be possible to add value to the primary product through down-stream processing. This could include the use of by-products and wastes such as the pod wall or husk to produce livestock feed. There is also a potential to produce specialty products such as cocoa juices, liquors, ice cream, jams, and jellies among others. Everything is in place; all we need is the will.

# Cocoa Research Unit at work

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The Cocoa Research Unit's (CRU) research is core funded by the Government of Trinidad and Tobago and international partners such as the Cocoa Research Association (UK).

Its primary research activities are to make cocoa planting material available with improved traits such as: high yield potential, disease resistance, high fat content and good flavour characteristics.

It is also the custodian of the International Cocoa Genebank, Trinidad (ICG, T), and in that role, has

focused on the conservation, characterisation (both morphological and molecular), evaluation and enhancement and use of the collection. The ICG, T has 12,000 trees making up its 2,300 accessions, which are groups of trees belonging to the same family.



Checking and double checking the data

Work in these four areas is funded through research projects with international commodity bodies such as the



Screening for diseases

United Nations Common Fund for Commodities, Bioversity International and the World Cocoa Foundation. Currently at CRU, there are 10 international

ly and locally funded collaborative research projects centered on the ICG, T. Many of these projects include active co-financing and counterpart contribution from within the chocolate industry. The CRU's work involves continuously seeking new venues for funding, and disseminating its research findings in various local and international conference proceedings, newsletters and peer-reviewed journals.

The CRU functions at several levels. It provides training and quality assessments to the Ministry of Agriculture, Land and Marine Resources (MALMR) in screening new commercial type cocoa types before they are released to farmers. Cocoa accessions identified from its germplasm screening and enhancement programme for Black Pod and Witches' Broom diseases are distributed internationally via quarantine to cocoa breeding programmes and also form part of the MALMR's local breeding programme.

It screens the quality of beans from cocoa buying agents and trains them and fermentary operators in optimal

cocoa post harvest processing for the Cocoa and Coffee Industry Board.

It works directly with some large farmers (who ship their cocoa privately and directly to chocolate manufacturers) to maintain high quality.

It is part of the National Cocoa Stakeholders Steering Committee and Working Group, helping to train farmers and guide the rebuilding process.

The CRU also collaborates with other research centres such as CIRAD (Centre de Coopération Internationale en Recherche Agronomique pour le Développement, France) and universities (such as Hamburg, Germany and Towson, USA) along with other UWI departments.

For instance, Dr Ivan Chang Yen of UWI's Department of Chemistry is involved in two State-funded projects; one that looks at heavy metals and Ochratoxin A (a fungal toxin) in local cocoa beans. This is primarily to protect the health of consumers and will enable a Hazard Analysis and Critical Control Point (HACCP)-based system for cocoa production, and thus a system of certification.

The other project led by Dr Chang Yen is based on the findings that dark chocolates contain healthy anti-oxidant and nutritive properties, known as nutraceuticals. Since the level of these nutraceuticals in local cocoa is unknown, the project seeks to "chemically characterise the flavour and nutraceutical content of local cocoa beans and to correlate their chemistries to their respective sensory qualities."

Ever since local cocoa research began, the task of assembling the ICG, T has spanned 60 years of effort, largely driven by the succession of reputable scientists associated with this historical centre of excellence.



# Bean to Bar

*The Life and Times of a Fine Cocoa Pod*

BY SERAH ACHAM

**The Cocoa Research Unit** marks its 50th anniversary this year, and over time it has been a substantive force in keeping cocoa alive. Through its research, its cacao collections, its outreach and the help it gives to farmers and chocolatiers, it is indeed a national treasure. We continue our series on some people who have benefited from the CRU.



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Chocolate. Many of us simply need to see the word and we can taste it... thick, smooth, creamy. Perhaps you prefer yours richer and darker, maybe sweeter, whatever your fancy, while you're nibbling or sipping away, you couldn't be less concerned with where it started. No. Not in Mr. Cadbury's Birmingham chocolate factory. Right here in Trinidad and Tobago's cocoa fields.

T&T's Trinitario cocoa beans are among the world's best. They're the main ingredient for the finest, literally clamoured after by the world's fine chocolate makers.

"Every chef would kill to have Trinidad beans and feature Trinidad cocoa because it's known for the flavour profile. You can't get that anywhere else in the world." says Lesley-Ann Jurawan, owner of Delft Cocoa Plantations Violetta Fine Chocolates.

Our conversation has my head spinning. Ask one question and she partially answers two others and raises another. She's apologetic. I'm quick to forgive. It's not hard to do.

As owner of both a cocoa estate and a blossoming chocolate making business, Lesley-Ann takes on many roles, each requiring as much time and dedication as the other, "because cocoa is a really exciting industry to be in now. Every facet of it is developing," she declares. "Yes, I make the chocolates but ... my major focus is having an impact on the cocoa industry," raising awareness of the superb quality of Trinidad's cocoa and encouraging Trinidadians to take full advantage.

Take Valentine's Day, she continues, when people flock towards the Cadbury section at groceries. "Little do they know that it's using lower quality stuff compared to us."

"The same way we know about mas and pan," as a part of our cultural identity, she urges, we should "be aware and proud of the quality of cocoa we produce."

Lesley-Ann and Delft crossed paths in early 2009 when her father acquired an estate in Gran Couva and needed someone to take the helm. "I found out kind of after the fact that he had gotten it and I did a lot of research to figure out what could happen with bean-to-bar."

When she discovered what a future in chocolate could hold, she jumped in.

"I did a lot of theory where ever I could find it ... Just any research I could get my hands on. Anywhere." She registered for online classes at Ecole Chocolat, based in Vancouver, Canada, and then enrolled in its Master Chocolatier programmes which took her to Belgium and Switzerland.



Along the way she discovered the value of Trinidad's cocoa. "People from all around the world would die to come and see what we have in our backyards. It's the most amazing thing," she says, recalling an experience while at class in Switzerland.

“Add to that the fact that there is a lot of cocoa growing in Trinidad. So much, that when she gives tours of her estate, she shows participants the abandoned ones nearby and points out all the cocoa pods “just drying on the trees ... and they cannot believe it!”



“They took out a frozen cocoa pod they shipped from somewhere in the world. They defrosted it, thawed it out and sliced it open to let people in the group taste it ... and they went nuts to be able to taste the cocoa pulp. It was insane, they were so impressed.”

In the end, she didn't depart with just her diploma and new skills. Lesley-Ann left Europe with a vision for Trinidad's cocoa. Her studies in Belgium entailed a visit to a renowned chef, World Chocolate Ambassador, Chef Bart Van Cauwenberghe. He's a taste designer, she explains, capable of performing feats such as picking out the flavours in a perfume after taking a whiff of it, and then creating a chocolate to taste like it. From his passion, she sensed he was the one to help her generate “the kind of interest and excitement I want to bring about for Trinidad cocoa.” She left Belgium in October 2010 at the end of her training and returned the following month to enlist his help in opening a cocoa and chocolate school.

“When I started doing the chocolatering, the more I studied, the more I met young people from around Trinidad who want to do it badly but they don’t have the resources.” Coming from a career in teaching (she was a math and computer science teacher at Naparima Boys’ High School), she felt that others shouldn’t have to struggle to get started the way she did. “That’s my mantra in general,” she says, “nothing in life has any worth unless you can share it with people, so that really is the driving force behind everything that I do.”

Add to that the fact that there is a lot of cocoa growing in Trinidad. So much, that when she gives tours of her estate, she shows participants the abandoned ones nearby and points out all the cocoa pods “just drying on the trees ... and they cannot believe it!”

With this school, she says, she hopes to show that “going bean-to-bar,” or being involved in the entire chocolate making process, from growing and harvesting the cocoa pods, to turning the beans into chocolate, “can not only provide a sustainable lifestyle, but a comfortable lifestyle.” Hopefully, this will motivate the younger generation to get involved “and therefore create a supply again and that would have a lasting impact.”

Once she popped the question, Chef Bart “said yes immediately, because that’s where he wants to be as well—he wants to teach what he knows,” and is now her technical advisor with over 20 years of chocolate expertise under his belt.

Lesley-Ann and Chef Bart have conducted Chocolate Discovery shows in T&T, with the help of the Ministry of Food Production Land and Marine Affairs, the Division of

Agriculture, Trinidad and Tobago's hospitality schools and the Tobago Cocoa Farmers Association.

These shows targeted students at the hospitality and tourism institutes, and covered everything from “where chocolate comes from, how it's made, where we fit in that chain and ... the world class reputation that Trinidad and Tobago's fine flavour cocoa enjoys,” to chocolate tasting since you can't “just gobble it down. It's just like wine, there's a way to taste it.” They actually paired the chocolates with different wines and other spirits, but only used local products, “local spirits with local chocolates,” specifies Lesley-Ann. They included a session on the chemistry of chocolate and how to temper it.

Lesley-Ann explains that the shows also served as a research visit for Chef Bart, allowing him to experience the tastes of our islands. “He was blown away by all that we had to offer, from sorrel to pomerac to Angostura Bitters and spirits—he was shocked by how under-utilized chocolate was in combination with these flavours and implored our young chefs and chocolate enthusiasts to take advantage of them.”

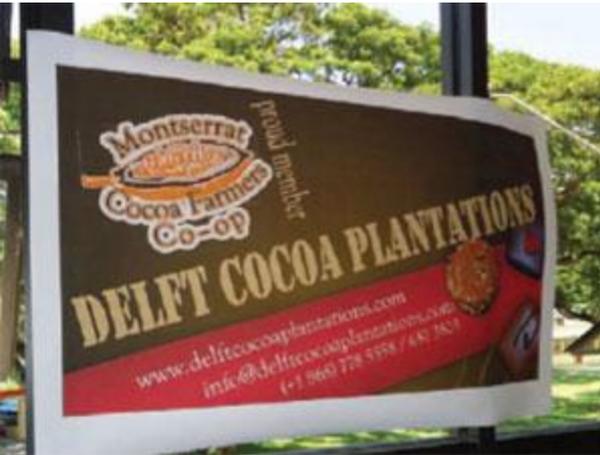
Her plans for a full-fledged school are underway and are being facilitated by the Centre for the Development of Enterprise. “We will be providing training in everything from chocolate making from the cocoa bean and assistance in sourcing machinery to chocolatier training in Belgium,” Lesley-Ann confirms.



When she's not focusing her energy on training, Lesley-Ann

slips into another of her roles. At one moment she may be a cocoa farmer, pruning, fertilizing, cleaning and harvesting. Delft Cocoa Plantations is situated in Gran Couva's Montserrat Hills, and is part of the Montserrat Cocoa Farmers Co-operative Society Limited. The farmers who own cocoa fields in that area all come together after harvesting, to dry and ferment their beans. This is so that "we have a consistent grade," explains

Lesley-Ann, boasting that it is "the highest grade in Trinidad right now" and this is where the beans her chocolates are made with come from. "So the chocolate we produce is single domain," or from a single area. We'd like to produce one that's made from Delft, but that's later on down the line."



True to her bean-to-bar model, after the pods are harvested, and the beans removed, fermented and dried, Lesley-Ann dons her chef's hat and is Violetta Fine Chocolate's master chocolatier. "We do solid chocolates, enrobed chocolates, bars, truffles, pretty much anything you want."

She doesn't produce her chocolates in bulk, rather, each batch is tailored to the person it's being made for. "I talk to you about the kind of flavours you like and I build the chocolate around that." Flavours depend on what's in season. One of her favourites is her pomerac pate de feuille, "a fruit gel, on a layer of dark chocolate ganache."

She also does a pineapple version of this on a pimento ganache. Intrigued? Well, when you go to pick up your order, you'll find it nestled under the lid of a wooden keepsake box. "After you spend all that time and you're using the finest ingredients possible, and making a really luxurious thing ...the box has to be at least as special as the chocolate going in it."

Lesley-Ann maintains that she couldn't have come as far as she has, in such a little time, without the help of The UWI's Cocoa Research Unit (CRU). "That's where I got started," she affirms, recalling her first visit there. Though she knew next to nothing about the CRU, she came onto the Campus, walked into the Unit and the first person she met was Mrs. Frances Bekele.

"I said, 'look I have some cocoa and I want to do something with it' ... and she sat me down and answered all my questions, gave me all the numbers for all the persons I could contact." From there, she was given advice on how to rebuild her estate and joined the Montserrat Cocoa Farmers Co-operative Society Limited. The rest is history. "My 5-year plan was accomplished in one year because of the opportunities (the CRU) provided me with."

Lesley-Ann makes sure to add that the CRU was also instrumental in her training as a chocolate maker. Despite her chocolatier courses, she didn't have any practical experience. "I knew how to take the finished chocolate and make it into pretty things but as far as taking the beans and making it into chocolate ... it was Naailah [Ali of CRU] who showed me how to do all that." With the CRU's assistance, and the use of their flavour lab, she learnt the fastest and best practice for producing her chocolates, including useful roasting techniques.

"I foresaw us making chocolate by year four and in year one, we were able to produce a bar."

Motivated, she is working on developing her signature line. "Everything is still beta testing for me," she says. "As fast as I roll them out I like to get feedback. I'm always trying to come up with new things." This can be challenging as she's found that Trinidadians tend to prefer solid chocolates. "Mr. [Jude] Lee Sam, [President of the Montserrat Cocoa Farmers Co-operative Society] always tells me that Trinidad is a bar culture. They know chocolate as bars. You can't just spring these things on them and expect them to like it," but this, she says, is the type of thinking she wants to eliminate.

"Trinidad as a society is evolving and ...instead of saying 'Trinidad is not a market for fine chocolate, forget about it and go on to something else' ... make the market." She decided early on that she's not going to try to compete with multinational companies like Cadbury and Hershey. She's not in the business of making candy bars, she says. "We want to make something pure, exquisite, uniquely Trinidadian."



## A delectable feast for the senses

The Cocoa Research Unit helps Isabel Brash to dream in chocolate

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Open a box of Cocobel Chocolates and you face a delicious dilemma. Each hand-decorated morsel is such a work of art that it is as much a feast for the eyes as the palate. Pink and purple flowers, green and orange leaves, shimmery dust, toasted coconut flakes and even a bluish green fin adorn these confections. They're the creations of Isabel Brash, architect gone chocolate.

Isabel was working as an architect with Geoffrey Maclean in mid-2008 when she decided to try her hand at making chocolate. Work was slow and “I was always looking for projects to do,” she says. “Cocoa was one of the things that I started playing around with ... I just wanted to try and make chocolate.”

She did her research and got some cocoa from her brother’s estate at Rancho Quemado. “I didn’t even know they had cocoa,” she admits. Once she had her stock in hand, she wasted no time. “I started playing around with them and I just got hooked.” It’s akin to Alice’s plunge into the rabbit hole, she says. “It’s like falling into this thing that you never knew about before and as I kept researching I just became more and more enthralled with it.” And the deeper she fell into the hole, the more people jumped in with her; for that Christmas she found herself giving her chocolates to family members as presents. They gave her chocolates to their friends, who began asking if she could cater their events.

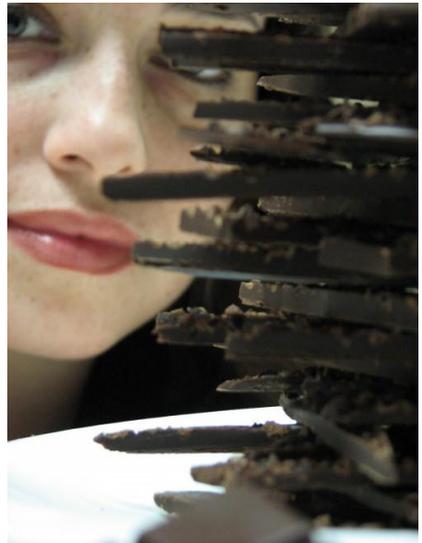
While investigating opportunities to learn more about the art of chocolate making, “just for fun,” she discovered Ecole Chocolat, an online school which teaches chocolatiering as a business. She learnt about the history of chocolate, the history of the industry, the distinction between fine and commercial chocolate (Hershey’s for example), and who the leaders in fine chocolate are.

“That course really opened me up to the whole industry and really got me thinking – ‘maybe I could do this as a little side business’.”

Suggested by her father for its similarity to her own name, and approved by Isabel for its origins and

meaning, Cocobel was established in the middle of 2009. “I didn’t want to name it after myself,” she says. “That’s just not me. I like to make a product that’s its own.” She really wanted a name that had a deeper meaning and was indigenous to Trinidad and Tobago, so she began to research “old cocoa gods ... and I also went into Patois, because you know it’s such an indigenous thing for us.” As fate would have it, ‘Cocobel’ was exactly what she was looking for. During a fishing trip with his friends from Paramin who spoke Patois, her father asked their opinion on the name. “They said ‘oh that’s a great name! It means beautiful brown woman, or nice brown ting,” she relates. “So I was like ‘that’s perfect’ because it’s chocolate. It’s dark and brown and beautiful and I just wanted a name that meant something deeper ... like dark beauty or earth beauty.” Once established, Cocobel “definitely took over,” she adds.

UWI’s Cocoa Research Unit (CRU) has been very helpful in the process, Isabel says. She first visited the CRU that year, after an invitation by the Friends of the Botanical Gardens. “They took us on a tour of the [International Cocoa] Genebank. I didn’t know anything about all that ... and I was fascinated to see



all these trees from all over the world. That’s when I really got to know Prof [Pathmanathan] Umaharan and Darin Sukah and Naailah [Ali] and Frances Bekele,” Isabel says. A relationship developed and since then

they are always available to answer her questions or send her useful information.

“I always say they’re the heroes,” she declares. “In Trinidad, they’re the people who sincerely care about the industry.”

In 2010, Isabel enrolled in Ecole Chocolat’s Master’s programme which took her to France and to the factory of her favourite chocolate maker, Michel Cluizel.

“I love his chocolates more than any other fine chocolate I’ve ever tasted,” she says. “I love their company ethos, how they do business ... their business etiquette.” At Michel Cluizel, the chocolates are named after the estate which produces the beans, “so the estate gets recognition for the beans,” and the farmers are paid directly; another benefit to the estate. “I saw that they were doing a course with them and doing a tour of that factory ... that was why I went.” It turned into the experience of a lifetime. She met Marc Cluizel (son of Michel) and found the courage to share a piece of her chocolate with him. He opened it in front of the class, “which I didn’t want him to do,” closed his eyes and tasted it. He was silent for a moment and then began listing the flavours he encountered, “bananas and vanilla and berries,” she remembers. He told her that it was, “very good chocolate, very good chocolate.” Her hand-made packaging reminded him of his grandmother’s hand-made paper wrapping for their company’s first set of chocolates. “That was the high point of everything. It’s like meeting a rock star... the ultimate.”



The programme included a visit to the factory of another renowned name in fine chocolate, Barry Callebaut, as well as a workshop on what a day in the industry is like – creating recipes, working with people

and using machinery for making truffles and bonbons. Since she had already begun to make her own chocolates, “going there helped my confidence a lot ... I started to do things a lot faster when I came back.”

It’s a good thing since she has so much business now that it’s a challenge making enough chocolate to keep her customers satisfied. “People get really frustrated if they can’t get their chocolate today,” she says, but she won’t let that get in the way of the quality of her chocolates. “I’m not going to sell you something that’s halfway or just for the business. It’s by order and I do everything fresh.” She did so well for Christmas that “I’ve completely run out of my stock of chocolate,” so she started the year with a new batch.

“Right now,” she says, “I’m roasting and shelling and grinding beans repeatedly,” and it’s the process of grinding that produces chocolate. Isabel explains that each cocoa bean consists of approximately 50 per cent fat, so when it’s ground, the beans become liquid. “I always say that’s when the cocoa jumbie sort of took over because you’re seeing this turning into liquid chocolate ... and that you’re making chocolate and that’s really cool.”

She grinds them into a semi-liquid which she then grinds with sugar depending on the type of chocolate she’s making. “I do a white chocolate, a milk chocolate and two different dark chocolates,” she explains. One of the

dark chocolates is for her confections, which need to be firmer and so has a bit more cocoa butter than the other which is “a darker, richer chocolate,” for her plain dark chocolate bars. After leaving the chocolate in a refiner for “at least a couple days” to get her desired “quality, fineness and smoothness,” the chocolate is finished. “After I make the chocolate, I would put it in trays and let it harden and then use it when I



need to make the other things.” At that point, she melts the hardened chocolate and tempers it “in order for the chocolate to look presentable.”

“I do things on different days,” she says, recounting her Christmas creations. “I had all these different flavours,” sorrel and ginger rum among them, “so I would take some days and just make the centres.” She’d cut them, put them aside and return the next day to coat them with the prepared chocolate.

“Any kind of fruit that I use in the centres I also do myself,” Isabel specifies. Her sorrel, and honey passion fruit chocolates are made with real fruit. “It’s all fresh,” she says, “like the coconut. I buy the coconuts whole and shell and grate them.”

She also uses mainly local flavours. “I do believe that we have such great fruits and great spices ... it’s a pity that immediately people think of strawberries when they think of chocolate. But we have so many fun things that go so well with chocolate too, like guava and passion fruit.” Her recipes are “based on our local palate,” she says. Her sorrel chocolates have cloves in them, “because that’s how we make our sorrel.” She also makes a mango pepper flavoured chocolate, one with a cashew and coconut filling and, possibly the most intriguing, one filled with salt, pineapple and shadon beni. This one is called Mermaid’s Kiss, she says, because one bite evokes memories of a day at Maracas beach.

Right now she makes her chocolates primarily by order since she uses fresh ingredients like cream and butter and fruits. However, when her shop is ready, “That’ll be a whole different thing. I’ll be making stuff all the time and people can just come in and buy.”

Not to worry if you can’t wait that long. Her chocolates can be found at Malabar Farms. “They’re the only ones I distribute to at the moment. I’ve had a lot of requests but I’m very particular because of the temperature.” While other stores may turn their air conditioners off at night, at Malabar Farms, “they keep it on all the time. When you walk into that place it’s like walking into a fridge, so I trust it there.” She’s also very particular about placing expiration dates clearly on the packages so that consumers get them fresh.

“It’s like your child you know?” Isabel says. “When you put so much work into it ... I care about what people think when they buy.





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