Anti-aging chocolate

Quality matters

Women in chocolate

Cocoa horizons
Our value chain, from the cocoa farmer to the chocolate-based consumer products, is far too complex for any one player to manage on its own! The supply chain management efforts of the many participants are disjointed and diverse and, hence, not efficient.

That is why there is a need for better alignment between all stakeholders in the supply chain, including farmer organizations and certification bodies, and for more efficient knowledge transfer and sharing. In the midterm this will be decisive for cocoa supply and the success of all players.

One of our biggest challenges starts right at the beginning of the global supply chain for cocoa and chocolate products – in the origin countries. In order to secure future cocoa volumes as well as improve cocoa quality to meet the ever growing demand for chocolate worldwide, we must improve the livelihoods of smallholder farmers in the cocoa growing countries, which are often among the poorest of the world.

Further along the supply chain we see even more challenges: in today’s cocoa market rules and regulations, the persisting high volatility of raw material prices and foreign exchange rates, the political instability in the cocoa growing regions and the increasing global interdependence of markets, international regulations and requirements for food quality and safety, shorter innovation cycles and – once again – a challenging economic environment.

These challenges have made it abundantly clear to us that we must all join forces to bring about lasting change for the better.

This publication is dedicated to all stakeholders who are willing to work together along the fascinating chain from cocoa to chocolate-based products with the passion these one-of-a-kind products of nature deserve.

Enjoy reading our Journal!

“None of us can do it alone”

Juergen Steinemann
CEO
Reflections with Massimo Garavaglia on Barry Callebaut’s long-term partnership and outsourcing model.

Mr. Garavaglia, you were involved in most of the major long-term partnership agreements Barry Callebaut closed in the recent past. What are the main reasons why food manufacturers enter a long-term partnership with Barry Callebaut?

We are able to offer our customers an attractive package, starting with ensuring the availability of cocoa up to the timely delivery of their chocolate needs in the required high quality at the specified location. Our long-term partners also appreciate having access to our pipeline of innovations and many of them can concentrate more on their branding and marketing activities thanks to the partnership with Barry Callebaut.

What are the main obstacles that must be overcome when negotiating with a customer interested in doing longer-term business with Barry Callebaut?

A commitment to a long-term business relationship is never a “quick win.” It takes months, sometimes even years, of negotiations. When you put part of your production process in somebody else’s hands, a high degree of mutual trust is needed.

How do you convince a customer to become a long-term business partner of Barry Callebaut?

I think the most convincing argument is the way Barry Callebaut does its business: We share the same values and principles as our partners. This is an important starting point when charting a long journey together. Moreover, Barry Callebaut’s well-balanced geographical footprint combined with its strong presence in emerging markets is a compelling argument: Wherever they need our support, we are very close to them. In addition, with our sustainability programs we offer our business partners an important element for meeting the expectations of their clients and end-consumers. Last but not least, we guarantee food safety and meet highest production standards.

What makes the business model for Barry Callebaut attractive?

Barry Callebaut is fully dedicated to cocoa and chocolate. As a specialist, we can achieve important economies of scale, both in terms of production costs as well as in R&D. For us, this is an important element in maintaining our leadership position. As cost leader, we are able to offer our products to our customers at competitive price levels. As innovation leader, we can provide them with the chocolate of tomorrow already today.

On September 9, 2010, Barry Callebaut became the key global cocoa and industrial chocolate supplier of Kraft Foods Inc., the world’s second largest food company, under a long-term global master product agreement.

What was Kraft’s main motivation for entering this long-term partnership with Barry Callebaut?

“This is a good example of how strategic relationships with key suppliers drive incremental value. This agreement leverages our scale and lowers costs while maintaining high levels of product quality.”

Kraft Foods Inc.
Why do consumers in some countries like Switzerland or Germany eat up to 13 kilograms of chocolate per year while in other countries yearly consumption adds up to only a few grams on average? Is this because of climate? Tradition? Geopolitical history? Trade lanes? Food patterns? Demographics like the size and income of the respective middle class?

Actually it is a mixture of all factors mentioned above. If we look at how rapidly chocolate confectionery consumption in Brazil, Russia, India and China developed in the past few years, we might also have a look at some of the so-called Next 11 countries said to have a high potential of becoming, along with the BRICs, the world’s fastest growing major economies in the 21st century.

Five of these countries – Turkey, Mexico, Indonesia, Egypt and South Korea – are already on our list of major emerging chocolate markets, which includes some surprising names like Poland, Argentina or Ukraine.
How technology improvements contribute to various aspects, from the most delicate chocolate products to reduced energy consumption

Jörn Wagenbach, Head Corporate Communications & CSR, and Alessia Baccalà, intern at Barry Callebaut’s communication department, spoke with Dirk Poelman, Chief Operations Officer.

At Barry Callebaut you have a dedicated team focusing on new ways of making your products. Could you tell us how this team is structured and where the main focus lies?

Our process and technology development team consists of 15 people. Seven of them are working in the regions to support production and to implement best practices in their respective region. The other eight work in our centers of excellence for cocoa in Louviers/France and for chocolate in Wieze/Belgium. Main focus, of course, is to develop new ways of making our products.

Our target is to increase the output of existing and new plants. The team works very closely with our engineering specialists.

There is also a special focus on reducing energy consumption per tonne, in line with our Corporate Social Responsibility objectives.

Less energy consumption means reducing your CO₂ footprint. Can you provide some specific examples?

Actually there are plenty of them. Take the installation of new bean breakers, for instance. They can reduce energy consumption during the roasting process by 20 to 25% per tonne by eliminating the micronizer, the preheater for the beans. This also means less equipment and less maintenance.

Another example is high-speed chocolate refiners. While conching affects the characteristic taste, smell and texture of the chocolate, refining reduces the size of the different components of the chocolate. By adjusting our refiners, we can speed up the refining process and, consequently, increase the output per machine by more than 30% while maintaining the same particle size. This new way of working has a positive impact on energy consumption per tonne during the refining process, which is obviously reduced.

You mentioned conching – any new technical developments there?

I am glad you asked – actually we have developed a continuous conching process that gives us a great advantage: We can triple the output of the conche and still achieve the same product quality. Improvements to the traditional conching process have been tested and implemented at different sites. Progress was mainly made in two areas: reduction of energy consumption by 35% per tonne and improved conching efficiency because of better air flows in the conche, resulting in shorter conching times and improved cocoa butter yield. This technology is based on standard conches that were reengineered in-house. Further developments are under way to make this continuous conche even more efficient. But what is true for any chocolate maker is also true for us: When it comes to the details of the conching process and, especially, breakthroughs on the innovation front, we all become very secretive …

With about 40 production facilities around the world processing cocoa and producing chocolate, meeting the demands from Food Manufacturers to Artisans customers alike, continual process and technology development improvements are of crucial importance for Barry Callebaut.

Reduction of energy consumption by 35%
Ensuring cocoa sustainability is at the heart of our business

by Marina K. Morari

Global demand for chocolate confections is on the rise, particularly in Asia, Eastern Europe and the Americas, yet cocoa production has been steadily declining for years. What’s needed to stop the decline? Can cocoa production be revitalized in West Africa, still the source of about 70% of the world’s total cocoa supply? Marina K. Morari, Manager Corporate Social Responsibility at Barry Callebaut, spoke with Steven Retzlaff, President Global Sourcing & Cocoa, about Barry Callebaut’s cocoa sustainability strategy, how it aims to have a lasting positive impact on farming communities, and its guiding principle “farmers first.”
With a few exceptions, the trend in cocoa production worldwide appears to be either modest gain or alarming decline. At the risk of creating a run on chocolate, let’s start with the real burning question. Will we run out of cocoa?

We’re not going to run out of cocoa tomorrow, but we do need to take the worldwide production figures seriously. We need to keep working to better understand what’s behind the low productivity, particularly in Côte d’Ivoire, and, where we can, take the steps necessary to try to turn the situation around. Our experience tells us that while we need to continue to focus on proven activities like farmer training and strengthening farmer organizations, we also have to invest in targeted research activities and innovations that could contribute to improving farmer livelihoods.

How is Barry Callebaut different from other companies in the sector that are faced with the same cocoa supply challenges?

Cocoa is the defining ingredient in chocolate – not sugar or milk powder or flavors. Cocoa is what makes chocolate special. Barry Callebaut is all about cocoa and chocolate. Cocoa is our defining raw material; without it, we don’t have chocolate and we don’t have a business. Therefore, it’s an imperative, not an option, for us to work towards ensuring there is cocoa today and tomorrow.

Other crops, like rubber, are in high demand and are also easier to grow than cocoa. Is cocoa farming still a viable option for smallholders?

Cocoa is a great crop for smallholder farmers! It’s also a great crop to help lift people out of poverty and improve livelihoods. The barriers to entry are low, and it’s not easy to mechanize or industrialize. I believe each farmer can succeed with cocoa farming, based on the amount of effort he or she is willing to put into making farms as productive as possible.

Farmer training is a key area of focus for Barry Callebaut’s sustainability activities, yet many cocoa farmers have been growing cocoa for years. Why is training actually needed?

Like in many rural agricultural communities, most cocoa farmers probably do learn how to grow cocoa from their parents or grandparents or other family members. The challenge we face is not necessarily telling farmers what they need to do, but convincing them to do what they know. Our approach is very closely linked with our guiding principle of putting farmers first. When cocoa farmers wake up in the morning, how do we convince them to choose to invest their energy in cocoa farming as opposed to other activities? We’d like to encourage farmers to be proactive and to take the steps to improve the productivity of their farms. While farmers may have experience with good agricultural practices, they may not have experience dealing with some of today’s most pressing problems, such as poor soil fertility, land erosion, infestations of insects or devastating crop diseases. So there’s real value in bringing small groups of farmers together with experts to discuss problems and solutions. In addition, field training sessions are a good opportunity to raise awareness about the issue of child labor and the importance of education. And, basic business training can provide the skills necessary to run a farm like a profit-making enterprise, which we believe will inspire young people to consider farming as a profession.

Even when farmers do know the best way to grow cocoa, they may have lost their motivation to do so if, for example, the economic incentive has disappeared. How are we addressing that?

Through the Farmer Field School activities organized with cooperatives participating in our Quality Partner Program in Côte d’Ivoire, we emphasize the importance of good agricultural practices and
sound post-harvest management practices. Through the implementation of what we call Yield Enhancement Services, or YES, we are aiming to increase cocoa farm productivity from an average of 400kg/ha to 800kg/ha. And, at the same time, we are also working to restore the incentive. When farmer members deliver quality cocoa – that is, well fermented, well dried cocoa, free of foreign matter – to their QPP coop, they’ll receive a higher price. Another example is Biolands in Tanzania. Biolands uses a farmer-centric business model that is based on mutual trust and respect. Farmers agree to deliver cocoa grown according to organic principles, and Biolands guarantees fair and transparent prices and accurate weighing, terms that historically could not be taken for granted in rural agricultural communities.

Many development programs today place a big emphasis on gender issues. What role do women play in cocoa farming, and how is Barry Callebaut including women in its sustainability activities?

Women contribute not only on the family cocoa farm, but may also have a small business activity to supplement the family income from cocoa. In addition, women in rural agricultural communities traditionally take on most of the responsibility for ensuring the health and education of their children. We have put an increased focus on engaging women in our cocoa sustainability initiatives. I’m convinced women will be key drivers of change, and of changing attitudes, especially as new educational and training opportunities are made increasingly available.

Barry Callebaut has launched its sixth Winning Together global initiative for employees, this one focused on Cameroon. What do you see as the value of this initiative in terms of Barry Callebaut’s sustainability strategy?

The Winning Together initiatives, like the name implies, bring employees together for a shared purpose. The fact that the initiatives are linked to CSR projects in cocoa farming communities means that all employees around the world, in all job levels and functions, have the opportunity to learn more about cocoa – how it’s grown, the farmers who grow it and the work we’re doing to contribute to improving livelihoods. The more our colleagues understand about cocoa, the better. It’s the heart of our business.

Barry Callebaut’s Cocoa Sustainability Strategy

Empowering cocoa farmers to increase incomes and improve family livelihoods

Contributing to ensure future supplies of cocoa is imperative because without cocoa there is no chocolate. We work with cocoa farmers to improve crop yields and quality, thereby helping to increase farmer incomes and improve family livelihoods. Farmers can earn more through higher yields and better quality; Barry Callebaut benefits by having sufficient quantities of quality cocoa grown in a responsible manner, to meet consumers’ increasing demand for chocolate.

Quality Partner Program

Barry Callebaut established its Quality Partner Program (QPP) for cocoa farmer cooperatives in Côte d’Ivoire in 2005. The program focuses on quality farms, quality cocoa and improved quality of life for cocoa farmers and their families. The goals of QPP are:

• To raise cocoa farmer incomes by providing better market access and training to increase yields and improve quality
• To enable cooperatives to better serve their farmer members by providing business training and financing support
• To further advance farm productivity and increase income by providing cooperatives and farmers with access to new technologies and research developments, such as improved plant materials and post-harvest processing methods

In 2010, the Quality Partner Program was launched in Cameroon, the fourth largest cocoa producer. Cocoa farmers in Cameroon face similar challenges as those in Côte d’Ivoire, and the new program is building on that experience while retaining the core focus on quality.

Biolands

Biolands has been working with farmers in the Mbeya region in Tanzania for more than 10 years to produce high-quality, fully-traceable certified cocoa. More than 20,000 farmers are registered in the program. A GPS tracking application ensures that each bag of cocoa can be traced to the farmer who produced it. Biolands offers farmers training, technical advice, supplies of seedlings and pruning equipment, and has sponsored the planting of more than one million cocoa trees as well as diverse shade trees. Barry Callebaut acquired a 49% stake in Biolands in 2008, and, based on the success of the program in Tanzania, supported the expansion of Biolands’ farmer-centric business model to West Africa. The new cocoa production enterprises established in Sierra Leone in 2008 and in Côte d’Ivoire in 2009 have together registered more than 50,000 farmers.
Callebaut® was established in 1850 by Eugenius Callebaut as a brewery in Wieze, in the heart of Belgium. In 1911, it began producing chocolate bars, and in 1925 chocolate couvertures. Callebaut is one of the rare chocolate makers that still selects, roasts and grinds its own cocoa beans. What’s more, Callebaut® Finest Belgian Chocolate is the only brand whose chocolate couvertures are processed entirely in Belgium, from the bean to the chocolate. Over the years, Callebaut® has become the preferred partner for creating chocolate and chocolate-related delicacies for skilled professionals active in the confectionery, pastry, restaurant and catering communities. The Callebaut® range offers a huge choice of chocolates: Think of fillings, decorations, chocolate mousse powder, sauces and toppings… All sealed with the Callebaut® guarantee of superior and consistent quality. Today, Callebaut® Finest Belgian Chocolate is one of the two global Gourmet brands of Barry Callebaut – a proud and respected premium-quality chocolate brand with a successful 100-year history.
What makes Callebaut® special for you?
Callebaut® offers a comprehensive product portfolio. No matter the application, I can count on reliable Callebaut® products and it’s always a pleasure to work together with the people behind the Callebaut® brand.

Why have you chosen to work with Callebaut® chocolate?
Mainly for two reasons: First, the consistently high quality of all Callebaut® chocolates. Secondly, there are never any delivery problems with Callebaut® chocolate – and for me, running my own business, this is very important, because I cannot disappoint my customers.

How could we make Callebaut® chocolate even better?
My customers are increasingly asking for organic, Fairtrade or UTZ certified chocolates. If I had a wish, I would wish that Callebaut® would add more certified chocolates to their current range.

ARTHUR TUYTEL
OWNER OF ARTHUR TUYTEL CHOCOLATIER/PATISSIER
ALBLASSERDAM / THE NETHERLANDS
Having started up a business with tea and coffee, Charles Barry, an innovator with a passion for chocolate, travelled to Africa in 1842 to seek out a selection of cocoa beans that would enable him to create his very first connoisseur’s chocolate. A milestone in the company’s long history of sourcing cocoa beans in origin countries and mastering the processing of cocoa was reached in the 1920s, when Barry opened its first production facilities in Cameroon and Côte d’Ivoire. Around the same time, the Barry family built a factory in Meulan, France, that still remains one of Cacao Barry®’s most important production facilities. Today, chocolatiers, confectioners, master bakers and pastry chefs all over the world choose the Cacao Barry® brand because of its perfect finesse and superior taste and texture. The French brand offers a wide range of high-quality cocoa products, chocolate coatings, fillings, decorating products, and moulds. After the merger with the Belgium company Callebaut, in 1996, Cacao Barry® is now one of the two global Gourmet brands of Barry Callebaut.
What makes Cacao Barry® special for you?
The strengths of Cacao Barry® are manifold. I like most that the brand keeps providing a tiptop customer service, is coming up with innovative products with pure origin roots and is promoting platforms like the World Chocolate Masters.

Why have you chosen to work with Cacao Barry® chocolate?
One reason was to have the opportunity to develop our own chocolate. For this, I am very grateful for the support of the commercial representative from Cacao Barry®, Thierry Charrette. Thanks to his listening to us and patience, we were able to create an exceptional chocolate which will delight our customers, I am sure!

How could we make Cacao Barry® chocolate even better?
Most of all, I see a tremendous growth opportunity for Cacao Barry® to win new interest and customers with making the personalized service of its Or Noir Lab more known.
Carma® was founded by the Zurich entrepreneur Carl Maentler in 1931 with the aim to bring to market high-quality and ready-to-use products for pastry chefs. For 80 years now, Carma® has been recognized as a reference brand in the pastry and confectionery sector as well as in the Swiss gastronomy and hotel industry. Today, Carma® is Barry Callebaut’s Swiss Gourmet chocolate brand, appreciated by a wide customer base both in Switzerland and abroad.

What makes Carma® special for you?
Top quality is a must today. It’s the people that make the difference. Carma® does a lot for its customers. We appreciate this very much!

Why have you chosen to work with Carma® chocolate?
As a leading pastry shop in the heart of Switzerland, we want to use the best products on the market and work with the best partner. Carma® and the people behind it help us to achieve our ambitious goals.

How could we make Carma® chocolate even better?
If you stop getting better, you’ll stop being good. Both Confiserie Bachmann and the team of Carma® share this belief!
Take a look at Roderick Parayno in the U.S., Stephane Bizard in France, and Norimasa Kushida in Japan – what do they have in common? Okay, they all work for Barry Callebaut. But there is more. Although thousands of kilometers apart from each other, they are all applying the same methods to reach a common goal: increasing production output without increasing capacity. The results so far? The additional output generated ranges between 15% and 55%!

This has much to do with setups, workflows and planning, of course. But the real strength of the program is its focus on people and their desire and ability to get from good to better. Roderick Parayno, Continuous Improvement Manager U.S., explains: “What we implemented is unique because it does more than just give instructions. It creates a better way of working, ensuring both the committed involvement of all members of staff and the sustainability of results obtained.”

The project started by clarifying the roles and responsibilities within each site and developing precise and specific performance indicators for all departments and every level within a department. Dedicated training prepared staff to analyze and address performance issues, resulting in rapid improvements of the operational results. Daily production results and root causes for inefficiencies are now published in all production areas and explained to all operators. “Improvement measures are communicated and implemented more quickly,” says Stephane Bizard, Supply Chain Louviers.

Operational changes on and off the shop floor quickly became visible. A vital cultural and behavioral transition was also taking place, boosted by training sessions and coaching. In the words of Norimasa Kushida, Production Manager at Tsukaguchi: “Our continuous improvement program has advanced inter-departmental communication between production, supply chain, quality assurance and maintenance. It has built a platform for understanding and challenging ourselves.”

Very soon the three colleagues will have some more fellow workers to chat with about continuous improvement successes: A second wave of the program covers Barry Callebaut locations in Belgium and Malaysia and further roll-outs are planned for Eastern Europe and Africa.

Active in a capital-intensive business, Barry Callebaut has to ensure that performance of all of its production facilities is high and constantly improved. Growing customer expectations confirm the need to maintain cost leadership in the sector.
Naturally sweet—
with Stevia

A new chocolate innovation developed in a strong partnership
In October 2010, Barry Callebaut launched the first no sugar added chocolate with Stevia extract produced on industrial scale that does not cause any side effects, making it safe for all to enjoy. This particular innovative chocolate will be retailed exclusively by renowned Belgian chocolate maker Cavalier.

In an interview, Felix Verdegem, the owner of Cavalier, explains why he is extremely excited about this latest innovation.

by Raphael Wermuth

Your company is specialized in chocolates with no added sugar. What was your motivation for starting this particular business?

Our family has a long heritage in the food business, starting with my grandfather. When founding Cavalier fifteen years ago, we identified two prerequisites for being successful: First, we wanted to offer high quality products. Secondly, with diabetes and obesity on the rise, we were convinced that there is a huge, unexplored market for indulgent, healthy chocolate products.

Usually, your products are based on maltitol. Why are you now launching chocolates sweetened with Stevia extract?

Maltitol is actually an excellent sugar replacer with a great taste, but we noticed that some customers still perceive it as something artificial – when in fact it originates from a natural source. Furthermore, chocolate products containing more than 10% maltitol need a warning on the packaging, since it may have a laxative effect. In contrast, Stevia extract is viewed as a natural sweetener without having a laxative effect. That is why I decided to ask Barry Callebaut for support in developing a chocolate sweetened with Stevia extract.

Are sugar substitutes like Stevia extract just a means of reducing the overall amount of calories in chocolate?

Calorie reduction was and is still not my initial motivation for using Stevia extract in chocolate. The main issue is that we all consume too much sugar: Worldwide, the average daily intake of sugar is 2.5 times the amount recommended by
the World Health Organisation (WHO). Therefore, our focus is on substituting the sugar while keeping the healthy ingredients in chocolate that are naturally found in cocoa.

Why have you chosen to work together with Barry Callebaut to develop your new chocolate?

As a businessman, I like to work in proven partnerships. Cavalier has a long-standing, successful business relationship with Barry Callebaut. Besides, I realized that the potential partner for developing the Stevia chocolate I had in mind needed to be very experienced and knowledgeable in working with fibres – I knew this would be a key issue to solve. And with Barry Callebaut I found the right partner with these specific Research and Development skills.

What type of new chocolates will you now offer?

Cavalier will offer a comprehensive portfolio of chocolate products with Stevia extract. We have created tablets, bars as well as a comprehensive range of pralines, from low budget up to finest premium pralines.

When and where will you start selling your new chocolates?

Currently, there is no chocolate with Stevia extract from Cavalier on the shelves in Europe due to differing national legislation. However, this is changing as we speak. The product itself – in milk and dark variety – is ready for launch. As soon as Stevia extract receives EU regulatory approval, we will start selling our products in Europe. I expect this to happen by the beginning of December 2011. We have already begun to sell Cavalier chocolates with Stevia extract in the U.S.

Barry Callebaut’s chocolate with Stevia extract – and other sugar-reduced chocolates

The Stevia plant is cultivated throughout Asia and South America, where it has been used as a food ingredient for more than 200 years. Nowadays, it is also cultivated in Japan, Korea, and China. When refined, natural Stevia extract has between 100 and 400 times the sweetness of ordinary sugar – but no calories. This makes it an ideal sweetener for people seeking a healthier lifestyle.

Barry Callebaut has offered chocolate sweetened with Stevia extract since 2011. After first launching a dark variation, the company has now expanded its portfolio with a milk variation. In addition, a white chocolate with Stevia extract is currently in the late stages of development and will be launched soon.

Barry Callebaut has also marketed other sugar-reduced and low-calorie chocolates using different sweetener solutions since 2006. In addition, the company developed a specially processed chocolate sweetened with isomaltulose that prevents dental caries and is certified by the “Toothfriendly” organization and endorsed by dentists.
Barry Callebaut has succeeded in creating a special process, called ACTICOA™, that combines the divine taste of cocoa and chocolate with its health-promoting properties by preserving up to 80% of the flavanol content of raw cocoa. ACTICOA™ chocolate is one of the richest natural sources of cocoa flavanols. At present, around 30 products containing ACTICOA™ cocoa or chocolate are sold in more than 10 countries around the world.

Forget about the pills and anti-aging creams and indulge in what scientists found to be the ideal way to stay healthy and happy ever after!

Never before has our planet contained such a large percentage of older people. The Population Division of the United Nations states that “The older population is growing at a considerably faster rate than that of the world’s total population. In absolute terms, the number of older persons has tripled over the last 50 years and will more than triple again over the next 50 years. In relative terms, the percentage of older persons is projected to more than double worldwide over the next half century.”

No wonder that international consumer surveys show that also chocolate lovers are increasingly seeking indulgence that additionally offers clinically proven functional health benefits, or, in other words: an anti-aging chocolate with positive effects on both body and mind. Does that sound appealing to you, too?

While the nutritional potency of cocoa has been exploited in traditional medicines for centuries, it is only relatively recently that the numerous health benefits of this remarkable fruit have been attributed to the large variety and unmatched abundance of the flavanols, a sub-class of polyphenols (also known as antioxidants), within the cocoa bean.

Most of these cocoa flavanols are normally destroyed during the conventional chocolate-making process. By creating more careful processing techniques, Barry Callebaut has succeeded in preserving most of the natural flavanols from bean to chocolate. Recent studies demonstrate that chocolate rich in flavanols has positive effects on a whole range of bodily functions, including the maintenance of healthy blood pressure levels, more vein elasticity, and better blood flow. These improvements are generally associated with better cardiovascular health. What a delicious way to look after your well-being!

But there is more. Independent clinical studies have revealed that eating chocolate rich in flavanols can significantly help to protect your skin from the harmful effects of ultraviolet radiation. They demonstrate that regular consumption of specially produced chocolate with preserved high cocoa flavanol levels can more than double the resistance of the skin to UV light and additionally increase the hydration and elasticity of your skin. The authors of the studies state that the effects are most likely to be caused by the anti-inflammatory activity of the cocoa flavanols and their capability to increase blood circulation in the skin. These results are comparable with those achieved by leading cosmetics products. The difference, however, is that the effect after eating chocolate comes from “within” and is consequently observed over the whole body.

And it gets even better. Cocoa is also a natural source of mood-lifting components which may become an alternative to existing anti-depressant agents! Consumers already know that chocolate is a delicious treat that keeps their spirits high. It has now been shown that there are also components in cocoa which have a mood-lifting effect.

Of course, a balanced and varied diet and a healthy lifestyle may also add to the positive effects of eating chocolate rich in flavanols… •
First visit to a cocoa origin country

The prestigious Barry Callebaut Ambassadors Club unites more than 150 chefs, pastry chefs and confectioners of international reputation. They represent Barry Callebaut’s three Gourmet chocolate brands Callebaut®, Cacao Barry® and Carma® and their mission is to transfer their chocolate know-how and techniques to other craftsmen all over the world.
Differentiating chocolate creations

Barry Callebaut operates four decorations factories in Europe that serve demanding customers around the world. Decorations such as chocolate pencils, blossoms, vermicelli, pearls, flakes, shavings, rolls, cups and plaquettes, moulds or transfer sheets turn any chocolate creation into a veritable piece of art. Barry Callebaut offers over 6,000 different decorations to our various customers – from the small, high-end confectioner, baker or pastry chef to the large industrial customer. This is the widest assortment offered by any chocolate producer worldwide. Our innovation team is constantly developing new decorations that allow our customers to continuously make the difference and surprise their own customers. Take transfer sheets: They allow chocolate to speak. They are the ideal tool for personalizing confectionery and pastry products and giving them a premium touch.
The core of some of the most indulgent chocolate delights is often overlooked. Hidden inside the dessert pieces, chocolate bars, bakery products or other sweet treats we indulge in is a huge variety of creamy, crispy, crunchy, chocolaty, nutty, fruity or other fillings. Inclusions are also an important ingredient – smaller in volume, but big in value for many sweet treats. Both inclusions and fillings can add an extra dimension of taste, texture and variety to virtually any application, from confectionery to ice cream to bakery products.

The attractive market for fillings and inclusions continues to grow. Barry Callebaut offers the widest range of new and unique filling and inclusion solutions of any chocolate manufacturer, to the delight of customers and consumers around the world.

Barry Callebaut’s research and development teams focus on and anticipate major market trends and devote particular attention to health-related issues, also in fillings. Recently, Barry Callebaut presented some innovative and healthier confectionery ingredients low in saturated or hydrogenated fats and it has almost completely eliminated the use of trans-fatty acids in its products. Another way of answering the healthier snacking trend is by switching from fat- to water-based filling products. Despite the technical nature of these developments, the foremost goal is not to compromise on functionality or taste. We all enjoy a bite of something sweet, don’t we? •

**Health plays a big role: Barry Callebaut pays particular attention to health-related issues when developing fillings and inclusions. Examples of the healthy solutions it offers are:**

- Aerated and water-based fillings for lower calories
- Reduction or elimination of trans-fatty acids, saturated and hydrogenated fats
- Fruit-based fillings and coatings

**Inclusions and fillings – we care what is inside**

**Inclusions can tantalize our senses by changing the texture, taste, color, shape or size of the purest product.**

**Not only “in from the cold,” but also “into the cold” – Barry Callebaut’s ChocMelts™ inclusions are made from 100% pure chocolate.**
Chocolate and ice cream – who wouldn’t melt away when thinking about this combination? But bringing the two ultimate indulgence products together in their purest form was nearly impossible because of their different melting points. Nearly impossible? That meant possible for us!

In from the cold

Ice has been used to make tasty dishes for thousands of years. Food historians say that a frozen mixture of milk and rice was used in China around 200 BC. Later on, the Roman Emperor Nero had ice brought from the mountains and combined with fruit toppings. People in the region that today is known as Saudi Arabia were perhaps the first to use milk as a major ingredient in the production of ice cream. They sweetened it with sugar rather than fruit juices and developed large-scale production methods.

Chocolate, of course, also has a rich history, dating back nearly 4,000 years to the ancient civilizations of Mexico, Central and South America. Nevertheless, it took nearly an eternity before both – ice cream and real chocolate – were melting together in perfect harmony.

In order to replicate the same texture and melting behavior of chocolate at low temperatures, for a very long time most ice cream manufacturers resorted to the use of so-called chocolate “compounds,” made with vegetable fats other than cocoa butter for coatings. The same was true for any kind of ice cream inclusions.

Barry Callebaut was among the first companies to create ice cream coatings and inclusions made with one hundred percent chocolate, combining the technical characteristics of compounds with the unmistakably intense flavor and texture of genuine chocolate. Because they melt together with ice cream, the innovative coatings and inclusions release a much richer and more intense chocolate taste than conventional compound-based applications. The secret lies in how the chocolate is processed and the resulting crystalline structure of the cocoa butter, which ensures a real chocolate experience even at the low temperatures of ice cream.

Hans Vriens, Chief Innovation Officer at Barry Callebaut: “Our new inclusions called ChocMelts™ are a truly exciting development. This 100% chocolate inclusion has the perfect melting behavior required for use in ice cream. We see untold possibilities for new products and new taste sensations on an industrial scale.”

Melting away has never been an indulgence so pure. •

by Jörn Wagenbach
**Sourcing core ingredients**

**Understanding and successfully navigating the complex raw material markets**

*by Raphael Wermuth*

**Steven Retzlaff**, what is the Global Sourcing & Cocoa business?

Barry Callebaut’s Global Sourcing & Cocoa business is a separate operating segment like a Region. The segment is responsible for the global procurement of our high-quality raw materials, such as cocoa, sugar and dairy products and it is the global cocoa production unit for semi-finished products, such as cocoa liquor, cocoa butter, and cocoa powder. Global Sourcing & Cocoa has sourcing teams in Africa, Asia, Europe as well as North and South America. In total, the segment employs 1,600 colleagues.

**Roman Müggler**, cocoa sourcing is obviously a complex business – why is that?

Indeed, it is. Cocoa is a commodity and buying and selling activities take place in a constantly changing environment – cocoa prices go up and down depending on the prevailing market forces. Cocoa availability can also vary significantly due to various factors. To manage this complexity, we have a team of 12 cocoa specialists who work alongside our local sourcing teams in Côte d’Ivoire, Ghana, Cameroon, Sierra Leone, Tanzania, Brazil, Ecuador and Malaysia as well as with local partners in Nigeria, Indonesia and most of the other cocoa producing countries. We study the correlation of different events and the resulting effect on price in order to secure the necessary supply of cocoa, at the right time, in the required quality and at competitive market prices.

**Massimo Selmo**, you are responsible for sourcing all non-cocoa raw materials. What else is needed in order to produce chocolate?

Our team of around 40 sourcing specialists procures ingredients such as dairy products, sugar, oils and fats. To give you an idea of the volumes, the amount of milk we buy is equivalent to the annual milk production of 200,000 cows. The 3.3 million tonnes of sugar beets we buy are cultivated on an area of land the size of 30,000 football fields. My team also takes care of purchasing technical machinery and spare parts, packaging material as well as energy like electricity and gas.

**Are both your teams doing this centrally out of Barry Callebaut’s head office in Zurich?**

M. Selmo: We are organized as one team with three main presences in Zurich, Chicago and Kuala Lumpur as well as smaller, local presences in emerging markets such as Russia, Brazil and China. This way we
While the finished chocolate is the sweet finale, the story of Barry Callebaut chocolate begins with sourcing. Specialized teams buy all the raw materials needed to produce the company’s own cocoa and chocolate products in order to serve its customers best. We interviewed Steven Retzlaff, President of Barry Callebaut’s Global Sourcing & Cocoa business, along with Roman Müggler, Vice President of Cocoa Procurement, and Massimo Selmo, Head of Purchasing, to understand better how this is done and what the main challenges are.

...
**FROM THE BEAN TO THE SHELF**

The supply chain trip of a cocoa bean from an origin country to consumer households

by Tamara Frey

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1. **Growing cocoa**
   - *Cocoa Tree*
   - *West Africa*
   - *Cultivation*
   - *Fertilized fruitpulp*
   - *Criollo*
   - *Trinitario*
   - *Forasterio*

2. **Processing and refining of cocoa**
   - *Selection of beans, cleaning, drying*
   - *“Nibs” roasting*
   - *Characterizing aromas*
   - *Cocoa mass – cocoa butter, cocoa cake*
   - *Quality check*
   - *Grinders: dark, white, super fine cocoa liquor*

3. **Chocolate takes shape**
   - *Moulding to blocks*
   - *Solid shapes*
   - *Cooling blocks drops*

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4. **Customer segments**
   - *Packaging, storage*
   - *Logistics*

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5. **Cooling blocks**
   - *Drops*
   - *Moulding to blocks*
   - *Solid shapes*

---

6. **Processing and refining of cocoa**
   - *Selection of beans, cleaning, drying*
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8. **Customer segments**
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   - *Quality check*
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10. **Chocolate takes shape**
    - *Moulding to blocks*
    - *Solid shapes*
    - *Cooling blocks drops*

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11. **Customer segments**
    - *Packaging, storage*
    - *Logistics*
A cocoa bean takes a long and fascinating journey en route to becoming a precious ingredient for delicious chocolate. There are few foodstuffs with such a rich and intriguing history as cocoa and chocolate. Just like coffee, we inherited the cocoa bean from the pre-Columbian cultures in Latin America. When Hernando Cortés first imported cocoa to Europe and Europeans learned how to make a chocolate drink with it, it caused quite a stir: divine to some, heretical to others. Even today, cocoa and chocolate still exude an aura of mystery, luxury and pleasure.

Let us introduce you to the journey of the cocoa bean from an origin country to the four corners of the world.
Dynamic agroforestry is all in the mix
Dynamic forestry – mix
Looking at the development of supply and demand in the cocoa and chocolate industry, it’s clear that cocoa production will have to step up to keep up with the growing appetite for chocolate in markets around the world. Consumers in emerging economies such as the BRIC countries Brazil, Russia, India and China and countries in the Middle East, for example, are developing a taste for chocolate. While this trend is welcome news for the cocoa and chocolate industry, it also underscores the need for significant and sustainable increases in cocoa production.

How to achieve this goal is a topic of intense debate among experts. While the systematic use of chemical inputs has long been regarded as a viable solution, another approach called “dynamic agroforestry” is currently also being explored. Dynamic agroforestry focuses on mixed crop farming. The aim is to grow cocoa with a variety of other plants that enable the cocoa trees to thrive.

**Cocoa production practices**

For decades, increases in cocoa production were achieved mainly through the conversion of tropical rainforest areas into cocoa plantations. Decreased soil fertility and sharp increases in plant diseases and pests in some cocoa growing regions – conditions observed after 20 some years of production – were countered by increasingly intense usage of chemical fertilizers and pesticides. Yet plant diseases are still a major problem, especially in West Africa and Asia. Moreover, it is now common knowledge that the large-scale clearing of tropical rainforest has played a key role in climate change. An expansion of cocoa farmland at the expense of the few remaining tropical rainforests would be irresponsible in today's world. The greatest challenge facing the cocoa industry is thus to ensure that it can continue to source its key raw material, cocoa, in the quantity and quality required. And this will only be possible through the implementation of good agricultural practices on existing cocoa farms.

**Lessons from Malaysia…**

In order to fully understand the complexity of the problem, let's take a look at how cocoa cultivation has developed in Malaysia over the past 30 years.

As a country characterized by large-scale plantations, it was relatively easy to boost Malaysia's cocoa production volume rapidly within just a few years through cultivation programs, and cheap loans and subsidies supported by the World Bank. High prices on the global market during the 1970s and early 1980s motivated both the government and investors to expand cocoa farmland, even in less-than-ideal locations, to force a monoculture approach and to maximize yields through the use of chemical fertilizers and pesticides. In doing so, the country succeeded in boosting its cocoa production from 35,000 tonnes in 1980 to 241,000 tonnes in 1990. Malaysia was the fourth largest cocoa-producing nation after Ghana (295 tonnes), Brazil (362 tonnes) and Côte d’Ivoire (704 tonnes). Cocoa had thus advanced to become Malaysia’s third-most important export.

At the end of the 1980s, exploding cocoa production was about to catapult Malaysia to the top of the list of the world’s largest cocoa-producing countries. But then in 2000, the annual harvest fell back to 35,000 tonnes. The fall in cocoa production was just as swift as its rise. What had happened?

Malaysia’s initially extremely high yields of two tonnes per hectare, achieved through the high-level usage of fertilizers and pesticides, could no longer be maintained. This was primarily the result of escalating soil depletion despite the use of fertilizers, as well as the fact that diseases and pests had become increasingly resistant to certain pesticides. The uncontrolled increase in these pests and diseases coincided with a period of falling prices on the global market. Oversupply, plus higher production costs made cocoa production unprofitable and triggered the gradual replacement of cocoa trees by rubber trees and oil palms.

**…and other cocoa growing regions**

The Brazil cocoa sector was devastated by an outbreak of another plant disease, witches’ broom, which triggered a similar crisis. In the early 1990s, cocoa production in Brazil plummeted from more than 400,000 tonnes to less than 150,000 tonnes within a decade. This had a dramatic economic and social impact on the entire
cocoa cultivation region in the state of Bahia.

Over the course of the past two decades, Indonesia has advanced to become the world’s third-largest producer of cocoa with an annual production volume of 800,000 tonnes in 2009. One cause for concern is that the same cultivation techniques are in use there which ultimately led to the collapse of cocoa production in Malaysia.

Côte d’Ivoire and Ghana, which together produce half of the world’s total cocoa harvest, are also struggling with the problems of decreasing soil fertility as well as increasing rates of disease and pests. These conditions are causing relatively low or even decreasing yields per hectare on smallholder cocoa farms. In addition, various plant diseases, such as swollen shoot, are appearing with increasing frequency in certain regions. Containment of this disease requires the complete destruction of infected cocoa plants, which in turn severely threatens the cocoa farmers’ livelihoods.

Barry Callebaut’s Research & Development activities in cocoa
Barry Callebaut has decided to address these new challenges and take action. Dynamic agroforestry is one of the approaches being studied by the company’s Research & Development team. Even though it is a niche approach, dynamic agroforestry has demonstrated some promising results by boosting production and improving soil fertility on cocoa plantations in several Latin American countries.

Barry Callebaut’s agricultural research draws on the experience and expertise of international specialists who, through many years of cultivation experiments and consultation with about 1,000 cocoa producers in Latin America, have successfully developed innovative cocoa production systems and implemented these in the day-to-day operations of small-scale farmers. Building on these experiences, an initial scientifically-conducted cultivation farm trial was implemented in Malaysia in 2011 in collaboration with the Research Institute of Organic Agriculture (FiBL), Switzerland, and the Bolivian consultancy ECOTOP. The results of this multi-year experiment will subsequently be used to help develop new strategies for increasing cocoa production.

What is special about this cocoa production system?
The cocoa tree comes from the Amazon rainforest and the rainforest regions of Central America. It grows there naturally in the shade of a large number of very different trees. According to the latest research, ideal conditions for cocoa tree growth and production should be based on the conditions found in their natural habitats.

Dynamic agroforestry is based on the concept that high productivity can only be achieved in agricultural ecosystems if they have a high energy flow or, in other words, if many plants can grow within one system and carbon can be accumulated as an energy source. As soon as the living plants die, microorganisms transform these into mineral nutrients which can then be absorbed by the living plants. The more biomass a system produces, the higher its energy flow, the more intense its water and nutrient cycles, the more nutrients are available to living plants, and the higher its productivity and soil fertility.

The challenge of this system lies in combining as many plants as possible in such a way that they do not compete against the cocoa plants, but rather develop a positive growth dynamic and allow the cocoa plants to produce at optimum levels. An important benefit is that a highly-productive, diversified cocoa ecosystem is also extremely stable against pests and diseases.

Targeted measures also produce economically profitable yields: Farm revenues are higher than production costs over the long term with minimal use of fertilizers and pesticides. Farmers are always interested to reduce external inputs, especially if this means stable high yields plus lower external input costs. In addition to cocoa, the farmer families can harvest numerous other agricultural products, such as various fruits and root crops, and wood.

Another increasingly important advantage of the dynamic agroforestry approach is that it is better adapted to ever more frequent climate fluctuations and could even reduce such fluctuations at a regional level. If dynamic agroforestry proves to be successful not only on a small scale but also on a large scale, and under a variety of different agronomic and cultural conditions, this could be a real milestone toward sustainable cocoa cultivation…
Quality matters

Ensuring quality from the source: the cocoa bean

Customers choose Barry Callebaut for quality. Tough prerequisite programs and controls by our Quality Assurance departments all over the world ensure that all our ingredients and products meet the highest quality standards.

Maintaining quality at a global level is a complex undertaking, and the key to success. This is especially true for the chocolate industry, where assuring consistent quality remains a challenge.

For a chocolate manufacturer, quality assurance starts with the cocoa bean. Being present in origin countries, not only for the sourcing of beans but also for production of semi-finished products such as cocoa powder, butter and liquor, gives Barry Callebaut a competitive advantage and additional control over quality.

Take Africa, from where we source most of our cocoa. Here, our local teams ensure that the beans we buy undergo very strict quality checks. In each of our four African factories in Cameroon, Côte d’Ivoire and Ghana, there is a Quality Assurance team that makes certain all cocoa products meet our quality standards. They ensure that the products meet customer and technical specifications, that they have the right color, microbiology, fat content, and moisture, that they are properly packaged and documented, taste good and most importantly… are safe to eat.

Barry Callebaut’s quality assurance system strives to continuously improve our quality levels. It complies with numerous standards, including Good Manufacturing Practices (GMP) guidelines and British Retail Consortium (BRC) certification, a global standard for food safety.
Women in chocolate
A closer look at...
Looking at the sheer numbers, one could easily get the impression that the world of chocolate artisans is a purely man’s world. Far from it! We would like to introduce you to four passionate women who easily rival their male professional colleagues. They are all masters of their craft with impressive artisanal skills and a long list of achievements, not to mention a deep passion for chocolate.

The four female chocolate artisans are all members of the Barry Callebaut Ambassadors Club. At the end of May 2011, they had an opportunity to take part in a visit to a cocoa origin country – for the first time for some of them. Together with more than 100 colleagues, they became acquainted with the Brazilian cocoa production and the local processing of Barry Callebaut at its cocoa factory in Ilhéus. An exclusive gourmet chocolate demonstration at the Caesar São Paulo International Airport Hotel marked the crowning climax for the Barry Callebaut Ambassador chefs from Europe, the U.S., Canada, Asia and Oceania.
Kirsten Tibbals – teaching chocolate Down Under

What fascinates you about chocolate?
I love its versatility; there is no other food product that is not only incredible to eat but an amazing medium for artistry. Chocolate can also have so many different tastes and flavor profiles, depending not only on the manufacturer but also on the farming processes and environmental factors.

What was the greatest experience in your professional career?
My greatest experience would be competing for Australia in both the Pastry Olympics and the World Pastry Team Championships. The competitions themselves were exhilarating and so was the time I spent beforehand sharpening my skills as a pastry chef. I did both competitions in the same year, which was quite demanding, but still an amazing experience.

Renata Arassiro – chocolates breathing Brazil

What fascinates you about chocolate?
Everything about chocolate fascinates me! I love the way it inspires and challenges you to use all five senses to create one unique experience of indulgence. Transforming liquid chocolate into a beautiful, shiny piece of delicious chocolate is wonderful and fascinating!

What was the greatest experience in your professional career?
Three things come to mind. The first was my decision to give up my solid career in textile engineering and enter the chocolate world. Secondly, the honor of being the first and so far only Callebaut ambassador in Brazil. Last but not least, opening my own chocolate shop, of which I’m very proud.
Marianne Valentine Nysted – indulging nordic chocolate lovers

Marianne is a pastry chef who won her first award by completing her apprenticeship with the highest score ever achieved by a pastry apprentice in Denmark. Marianne is the owner of Sweet Valentine in Copenhagen, a boutique chocolate shop in the heart of the capital of Denmark. In 1992 and 1996, she was the winner of the Danish national chocolate competition. But she has also shone on the international stage: Marianne was the first place winner of an international chocolate competition in Frankfurt in 1995 and won the bronze medal at The Nordic Championship in Oslo in 1994.

What fascinates you about chocolate?
Working with a material that is so alive, varied in taste and that opens up to many possibilities. It’s just so much fun playing with all these possibilities.

What was your greatest experience in your professional career?
One of the greatest experiences was getting the highest score on the apprenticeship test and winning a scholarship, which gave me the great opportunity to travel around Europe for a year. During that time I interned at various private schools and for various pastry chefs in Switzerland, Belgium, France and Austria. Another huge step was opening my first chocolate shop in 2000 and the second one in 2011. Last but not least, I very much enjoyed travelling to Brazil with the Barry Callebaut Ambassadors Club in 2011 to experience the origin of the cocoa and seeing a different side of what I work with every day.

Estella M. Belfer – chocolate goes TV

Estella is the founder and manager of Estella Master Class in Pastry & Chocolate, the leading culinary school in Israel. Estella is a graduate (cum laude) of the pastry making track at the Cordon Bleu School in Paris. She deepened her studies at various schools and companies in France, Germany and England. Estella’s rich professional experience includes pastry making at the prestigious Dan Hotels. She was the first to teach advanced chocolate techniques to professionals in Israel. Estella recently launched her own TV show on the Israeli Culinary Channel. She gives lectures nationwide and in the U.S. and develops chocolate and pastry products for leading chocolate and pastry manufacturers in her home country.

What fascinates you about chocolate?
Chocolate is a very unique material that engages all your senses. One cannot be indifferent to chocolate. Everywhere you go you’ll find people who love chocolate.

What was your greatest experience in your professional career?
My greatest experience was discovering and understanding the amazing process of how this wonderful raw material is made, mostly by hand, by skillful farmers, coping with the vagaries of the weather and various pests and diseases. Seeing how old and new technologies are used to turn cocoa into chocolate inspired me to explore the many wonders of chocolate and experiment with new creations.
Barry Callebaut, headquartered in Switzerland, resulted from the merger between Belgian chocolate producer Callebaut and French chocolate maker Cacao Barry in 1996. The merger combined Cacao Barry’s know-how in procurement and initial processing of cocoa beans with Callebaut’s extensive experience in producing and marketing chocolate products. Since 1998, Barry Callebaut has been listed on the SIX Swiss Exchange.

Today, the company is a fully integrated chocolate company with a global presence. It provides comprehensive chocolate solutions to the entire food industry. Barry Callebaut is present in 27 countries, currently operates 40 production facilities, employs around 6,000 people and generated sales of about CHF 4.6 billion in fiscal year 2010/11.

### Company History

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>Acquisition of Carma AG in Switzerland</td>
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<tr>
<td>2002</td>
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<tr>
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<td>2004</td>
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<tr>
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<tr>
<td>2006</td>
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<td>Opening of a cocoa factory in California, U.S.</td>
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<tr>
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<tr>
<td>2011</td>
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### Acquisitions

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<table>
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<th><strong>Barry Callebaut in Numbers</strong></th>
<th><strong>For Fiscal Year 2010/11</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Number of Employees</strong></td>
<td>5,972</td>
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<tr>
<td><strong>Number of Factories</strong></td>
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<tr>
<td><strong>Number of Industrial Food Manufacturers We Are Serving</strong></td>
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<tr>
<td><strong>Number of Recipes</strong></td>
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<tr>
<td><strong>Percentage of Direct Cocoa Sourcing</strong></td>
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<td><strong>Number of R&amp;D Projects</strong></td>
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<td><strong>Number of Chocolate Ambassadors</strong></td>
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<td><strong>Tonnes of Cocoa Sourced with QPP Cooperatives</strong></td>
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<tr>
<td><strong>CO₂ Reduction</strong></td>
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<tr>
<td><strong>Number of Professionals per Year Trained at Our Chocolate Academies</strong></td>
<td>26,000</td>
</tr>
</tbody>
</table>

Barry Callebaut is the world’s leading manufacturer of high-quality cocoa and chocolate. The company serves the entire food industry, focusing on industrial food manufacturers, artisans and professional users of chocolate.