

NEWSLETTER



BAKERY, CONFECTIONERY & SPECIALITY INGREDIENTS UNIT

Q4 2019

Dear Reader,

Greetings from FSL.

We are pleased to share the Q4 edition of our Bakery, Confectionery & Speciality Ingredients Unit newsletter with you.

FSL had an exciting Q4 during Gulfood Manufacturing 2019, where we showcased some of our innovative products and ingredients. This newsletter summarizes the innovative products that we have to offer which can improve the taste, look & feel of your final product.

We have also included some baking solutions which will help you achieve the best end result for your product. We have also provided a detailed report on Cocoa market prices which are expected to increase in 2020.

Please feel free to contact us with any queries you may have!

Happy reading!



FSL's Healthy Fat Solutions featured in Gulfood Manufacturing Newspaper

Exhibitor Highlights



FINDING HEALTHIER SOLUTIONS



Few industries in the world face a more pronounced pressure to respond to changes instigated by the end consumers' growing focus on health and wellness. The Middle East Food and Beverage industry is no exception and with the recently levied sugar taxes across the region, local manufacturers have had to react fast due to these regulatory mandates which express the governments concern for their population's health in terms of cardiovascular diseases, diabetes and obesity.

Food Specialities Limited (FSL) has been at the forefront of the regional food and beverage manufacturing industry since 1986 and has responded to recent consumer and regulatory shifts by working with their key ingredient partners to develop solutions focused on the reduction of sodium salts, by introducing functional fibres into the mainstream manufacturing process and by decreasing the reliance on hydrogenated fats and replacing them with healthier alternatives.

As regional governments begin to legislate against sugars, FSL is working on great-tasting alternatives

Sodium Salts Reduction - A large body of scientific evidence indicates a clear connection between excessive sodium consumption and cardiovascular disease. In processed food, salts play a key role in terms of flavour, texture and shelf-life hence reducing or replacing salts without compromising on flavour is a challenge. FSL's has partnered with companies such as Van Hees, BK Giuliani, Aromatech, Deutche Back and Stern Vitamin to develop salt reduction solutions without compromising on the flavour profile.

Hydrogenated Fats Replacement - Trans fats or partially hydrogenated vegetable oil are created by a process called hydrogenation, which allows the oil to be used in products like margarine, vegetable shortening, compound chocolate and coffee creamers. Though they have a longer shelf life than other fats, they are also linked to an increased risk of cardiovascular disease, the heightening of bad LDL cholesterol levels and type II diabetes. With the World Health Organization launching an effort to ban trans fats globally by 2023, the drive to find healthier fat replacement alternatives is even more urgent today.

According to Vivek Upreti, GM of FSL's Bakery, Confectionery & Speciality Ingredients division, "We have partnered with AAK who are world renowned experts in vegetable oil and fat solutions

and have developed a wide range of healthier alternatives to hydrogenated fats. Depending on the application, AAK and FSL have been helping their regional customer base find healthier solutions in the production of dairy, confectionery and snack products, all of which rely heavily on the use of processed fats. AAK's non-hydrogenated fat solutions provide stability, are cost-effective and can be customized as per manufacturers' individual product needs."

Dietary fibre - A wide body of research suggests that dietary fibre helps maintain digestive health, lowers cholesterol levels and helps control blood sugar levels, among other benefits.

FSL's technical team have been developing fibre-enriched bakery products, dairy products, plant-based dairy alternatives and juice beverages by applying clean label ingredients and natural citrus fibres. These innovative products have great versatility in the application scope that includes, dairy, meat, bakery, beverages, sauces, dressings, prepared foods, soups and other applications.

FSL will be showcasing their innovative products and healthier solutions in a dedicated innovation room at the FSL stand located at the entrance to Sheikh Saeed Hall 1, S1-B36.



More Power as DuPont & FSL Launch ‘POWER Pasta’

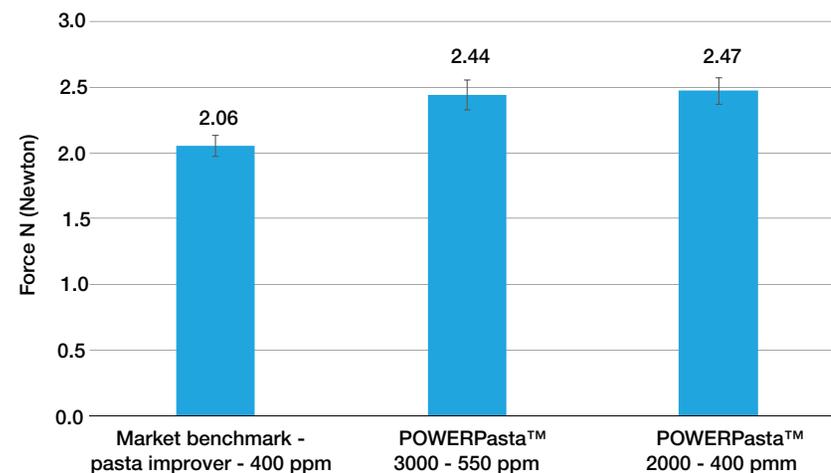


DuPont & FSL launched the ‘POWERPasta’ range of enzymes, which is a range of enzymes designed to improve the consumer sensory experience while also helping to manage raw material costs. The POWERPasta range of enzymes also helps reduce stickiness after cooking, helps prevent overcooking and improves the shape and appearance of pasta, all of which leads to a better dish of pasta.

The POWERPasta product range would help in maintaining taste quality, cooking and serving qualities and the authentic color of 100% durum pastas from pack to plate, while also helping food companies realize the significant raw material costs and saving potential of less expensive locally or regionally sourced wheat.

According to Dupont, consumers in markets on every continent are increasingly interested in locally sourced food products, but they aren’t willing to sacrifice on appearance, texture or taste, “POWERPasta range of enzymes offers a solution that leads to an improved culinary experience while helping producers generate greater profits by sourcing local wheat.”

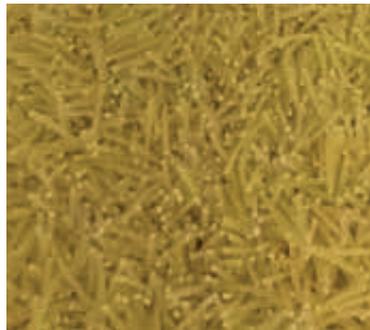
Bite firmness measured by TA (Texture Analyzer)



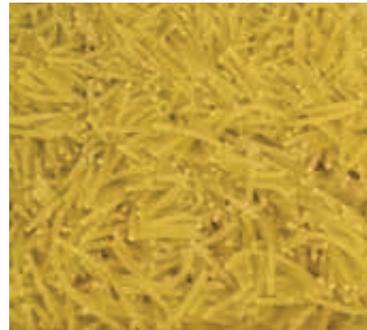
POWERPasta™ 2000 and 3000 are statistically different from the reference.

This solution has never been more relevant; pasta's popularity is soaring in the Middle East and Africa, where the dry pasta sector currently accounts for \$3.2 billion and is expected to grow 7.3 percent by 2023. In Turkey, Egypt and South Africa alone, more than 1,400 dry pasta products have gone to market since 2016.

Color of uncooked pasta



Reference -
30:70 durum/soft wheat



POWERPasta™

Tolerance to overcooking



Reference -
60:40 grist



POWERPasta™ -
60:40 grist

Combined with the knowledge and capabilities of our expertise this enzyme solution can improve quality attributes of your final product with reduced costs. We are honored to enable the combination of local ingredients and lower costs to enable delicious meals on a global scale.”

Your Most Common **Bun**-Baking Problems — Solved!



If you're always wondering how to maintain the best shape and appearance of buns, look no further, since **FSL** is your one stop shop for all your ingredients required for baking a beautifully shaped bun!

How Would You Maintain The Shape & Look Of a Bun?

Problem	Recipe	Functional Ingredients	Process
Irregular Shaped buns	If dough is too sticky, adjust water		<ul style="list-style-type: none"> • Reduce floor time • Weight control • Reduce dough temp. • Cooldown Pans
Clam Buns shell	Reduce Scaling weight		<ul style="list-style-type: none"> • Increase humidity on dough surface • Setting of lateral heat • Increase proofing temperature and/or relative humidity
Poor Pan flow	Increase water level Increase amount of Sponge Increase scaling weight	Add proteases Add Cystein	<ul style="list-style-type: none"> • Increase mixing time • Increase proofer temp
Cupping after slicing			<ul style="list-style-type: none"> • Improver make-up • Increase cooling time • Reduce convection and airflow in cooling area • Too much pressure at the slicer

How Would You Maintain the Color and Surface Texture of a Bun?

Problem	Recipe	Functional Ingredients	Process
Dark crust color	Reduce sugar and or milk level	Decrease level of amylases	<ul style="list-style-type: none"> • Increase fermentation time • Reduce temperature in oven • Reduce baking time • Longer sponge time
Light crust color	Increase sugar and or milk level	Increase level of amylase	<ul style="list-style-type: none"> • Decrease fermentation time • Longer baking time or higher • Reduce sponge time
Uneven baked			<ul style="list-style-type: none"> • Oven has to be fully loaded • Check fans and side heaters in
Wrinkling of surface		Increase oxidant Increase DUPONT Datem “PANODAN”/SSL level	<ul style="list-style-type: none"> • Reduce fermentation time • Reduce mixing time • Reduce relative humidity
Blisters on buns	Reduce yeast level Higher protein level in flour Reduce water level	Increase DUPONT Datem “PANODAN”/SSL level	<ul style="list-style-type: none"> • Reduce proofing time • Reduce proofing temp • Optimize mixing

Baking With A Dash Of Difference!



FSL's partnership with Ovodan egg powders will offer extensive benefits to our customers, ranging from convenience and ease of use, to uniformity and stability which will further improve the performance in the final product mix.

Here are some frequently asked questions about Ovodan's Products

① Can we get the product as per our specifications?

- Ⓐ Ovodan's egg products can be tailor made to suit your specific requirements. We make customized nutritional egg powder blends too.

② Are Ovodan egg powders safe to consume?

- Ⓐ Yes, our products are Dairy free, NON-GMO, Halal, gluten free and do not contain melamine or dioxin. Moreover, they are radiation free too. Certificates can be provided upon request.

③ Are Ovodan egg powders processed for de-sugaring?

- Ⓐ Ovodan products are de-sugared (<0.6%). The de-sugaring (fermentation, glucose elimination) is carried out as a separate pre-treatment operation prior to drying of egg white. Selective yeast strain is used for de-sugaring. Our whole egg powder is claimed to be much whiter when used for baking application.

④ What are the major benefits or advantages of using Ovodan egg powders in comparison to whole egg application?

- Ⓐ Many food industries can benefit from using pasteurized egg powders. Egg powder products compared to shell eggs provide a high grade of convenience which include:
- Minimum of waste;
 - Easy dosage;
 - Minimum room for storage;
 - Lower manpower required for handling;
 - High level of food safety;
 - Different egg blends which require little or no preparation eases the handling and minimizes the risk of errors

⑤ How can Ovodan egg powder be dissolved before use?

- Ⓐ The best way to dissolve whole egg powder or egg yolk powder is to use a mixer and to let the water circulate while adding the powder gradually.

⑥ What are the proportionate ratios of Ovodan egg powder and water required to dissolve it?

Ⓐ Whole Egg Powder

- 100 g of whole egg powder dissolved in 300 g of water corresponds to 400 g fresh whole egg (approx. 8 shell-eggs).

Egg Yolk Powder

- 100 g of egg yolk powder dissolved in 125 g of water corresponds to approx. 225 g liquid egg yolk (the yolks from approx. 12 shell-eggs).

Egg Albumen Powder

- 100 g of egg albumen powder dissolved in 700 g of water corresponds to approx. 800 g of fresh egg white (the albumen from approx. 25 shell-eggs).
- In some applications up to 900 g of water can be used with 100 g of egg albumen powder.

Consider Citri-Fi for All Your Bakery Applications!



Wondering what are the benefits of the CITRI-FI NATURAL CITRUS FIBER?

- ⊗ Non-GMO
- ⊗ Clean Label
- ⊗ Plant-based
- ⊗ Allergen-free
- ⊗ Sustainable
- ⊗ High water holding capacity
- ⊗ Emulsification
- ⊗ Stability
- ⊗ Mouthfeel

FSL has launched the Fiberstar's Citri-Fi, a clean label functional fiber which is derived from natural citrus fiber.

This is a natural citrus fiber produced from the citrus juicing process. The patented process uses no chemical modifications to open up the fiber to create high water holding capacity and emulsification properties. This provides a variety of benefits to food and beverage products.

Due to its superior moisture retention properties, it can be used extensively within the bakery category (which includes baked goods and bakery fillings) to improve their shelf-life.

To boost consumer appeal in the rapidly growing health and wellness segment, Citri-Fi reduces the fat / oil in biscuits, cakes, croissants, donuts, muffins and sweet dough while maintaining a full-fat mouthfeel. The fiber is effective in reducing fat levels and calories in bakery applications without compromising the taste, texture or cost of the finished product

Citri-Fi can be used to replace from 30-50% of the fat/oils/shortening in muffins, cakes, bread and tortillas



Control



Reduced fat

This versatile functional ingredient can also be used to partially replace eggs in cookies, cake and muffins while also providing textural, health and cost saving benefits. This ability to replace up to 30% formula egg offers food manufacturers cost savings since the price of eggs has remained high.

Benefits of Citri-Fi as a replacement to eggs in cakes

- Up to 20% egg reduction – cost savings
- Clean label
- Structure/texture
- Moisture retention
- Improved quality throughout shelf life
- Natural emulsification properties
- Stabilizes foam in high ratio cake

Since Citri-Fi is non-allergenic, it is an ideal functional fiber for gluten-free bakery products and its water holding capabilities help retain moisture to improve the product quality through-out its shelf-life, which is especially important for gluten-free products. Additionally, Citri-Fi improves freeze/thaw stability. In addition, Citri-Fi may be able to replace pectin within bakery fillings especially in high Brix / low pH food processing conditions by activating gelling properties.

Bakery Applications & Benefits Of Citri-Fi

BAKERY FOOD APPLICATION	CITRI-FI PRODUCT	TARGET BENEFITS	RECOMMENDED USAGE LEVEL
Bakery Fillings: Fruit Preparations	100FG, 200FG	Decrease level of amylases	<ul style="list-style-type: none"> • Increase fermentation time • Reduce temperature in oven • Reduce baking time • Longer sponge time
Bakery Fillings: Fruit Preparations	100FG	Increase level of amylase	<ul style="list-style-type: none"> • Decrease fermentation time • Longer baking time or higher • Reduce sponge time
Bakery Fillings: Fruit Pieces	100FG, 200FG		<ul style="list-style-type: none"> • Oven has to be fully loaded • Check fans and side heaters in
Bakery Fillings: Flavor Concentrates	100FG, 200FG	Increase oxidant Increase DUPONT Datem “PAN-ODAN”/SSL level	<ul style="list-style-type: none"> • Reduce fermentation time • Reduce mixing time • Reduce relative humidity
Bakery Fillings: Flavor Concentrates	100FG	Increase DUPONT Datem “PAN-ODAN”/SSL level	<ul style="list-style-type: none"> • Reduce proofing time • Reduce proofing temp • Optimize mixing
Chemically Leavened Baked	100M40, 200FG,125	Egg Reduction	<ul style="list-style-type: none"> • 0.25% - 1.00%
Chemically Leavened Baked	100, 200	Fat Reduction	<ul style="list-style-type: none"> • 0.25% - 1.00%
Cookies (Hard)	200FG	Fat Reduction	<ul style="list-style-type: none"> • 0.25% - 1.00%
Cookies (Soft)	200FG	Chewiness, Moisture Retention	<ul style="list-style-type: none"> • 0.25% - 1.00%
Fried Bakery	200FG	Fat Reduction	<ul style="list-style-type: none"> • 0.25% - 1.00%
Gluten-free Bakery	100FG, 200FG	Moisture Retention, Emulsification	<ul style="list-style-type: none"> • 0.20% - 0.60%
Pastries	200FG	Fat Reduction	<ul style="list-style-type: none"> • 0.25% - 1.00%
Yeast-raised Baked Goods	100, 100FG	Fat Reduction	<ul style="list-style-type: none"> • 0.25% - 1.00%



DeutscheBack is, an internationally successful enterprise in the field of Bakery Ingredients. The group operates worldwide with over 1,000 employees, 11 specialized ingredients companies and 15 affiliates abroad. DeutscheBack's headquarters are in Ahrensburg, near Hamburg, Germany.

FSL and the DeutscheBack application team are dedicated to offer our customers individual baking premixes and concentrate solutions, that meet a wide variety of their requirements in the production of bakery products.

The trend towards a healthy, natural diet and clean unadulterated food has been increasing among consumers over the past decade and is now a global trend. 'free of' or with 'no added..' is associated with superior quality and healthier foods and are growing in demand in the Middle East region where consumers are discerning and read labels closely. FSL and 'Deutscheback' are able to offer our customers clean label recipes which are organic ("bio") products.



Advantages of baking concentrates – usage level 0.5% to 10%

- Use of standard flours, seeds and many other raw material
- Optimized storage and logistics costs
- Flexible use of recipes and flavourings
- Functional active ingredients to complement recipes

Advantages of baking premixes – usage level 10–50%

- Use of standard flours
- Simple, reliable handling
- Time saving in development and production
- More variety in the range

Advantages of complete mixes – usage level 100%

- Maximum product safety in the production process
- Standardized production
- Optimum quality
- Trend products as a new incentive to buy



Here are just two of the recipes that you can find usin Deutscheback!

Sponge Cake Recipe

INGREDIENTS	IN GRAMS	IN GRAMS
Deutscheback TOP SWEET Sponge G 10 (concentrated compound)	225	165
Wheat flour (9-10 % protein)	530	380
Wheat or corn starch	210	210
Cacao powder	---	225
Sugar	790	775
Whole egg, liquid	1080	1160
Water 25 Degree C	250	175
Total batter	3,085	3,090

Chocolate Muffins Recipe

INGREDIENTS	IN GRAMS
Deutscheback TOP SWEET CHOCOFINE (PREMIX)	500
Wheat flour (9-10 % protein)	160
Chocolate drops	400
Sugar	340
Whole egg, liquid	300
Water,cold	200
Vegetable oil	450
Total batter	2,350



Cocoa Supply And Demand Scenario-Market Review

This review of the cocoa market situation reports on the prices of the nearby futures contracts listed on ICE Futures Europe (London) and ICE Futures U.S. (New York) during the month of September 2019. It aims to highlight key insights on expected market developments and the effect of the exchange rates on the US-denominated prices. Chart I shows the development of the nearby futures prices on the London and New York markets at the London closing time. Both prices are expressed in US dollars. Chart II depicts the change in the ICCO daily price index and the US dollar index in September. By comparing these two developments, one can disentangle the impact of the US dollar exchange rate on the development of the US dollar-denominated ICCO daily price index. Finally, Chart III illustrates monthly averages of cocoa butter and powder prices in Europe and the United States during the 2018/19 cocoa season.

Chart I: Prices of the nearby futures contract on the London (ICE Futures Europe) and New York (ICE Futures U.S.) markets in US\$ per tonne
September 2019

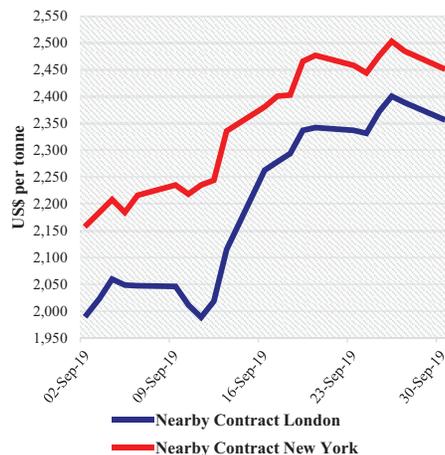
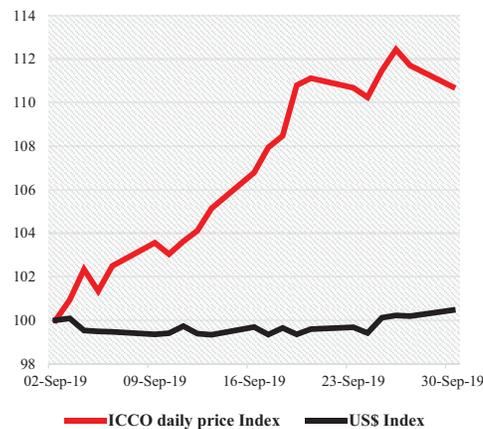


Chart II: ICCO daily price index and U.S. dollar index
September 2019



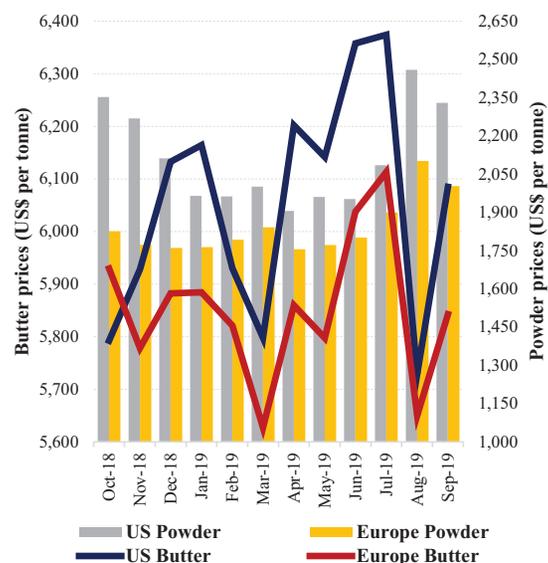
Note: The US dollar index is a measure of the value of the United States dollar relative to a basket of six major foreign currencies.



PRICE MOVEMENTS

During September, the prices of the nearby contract increased considerably on both the London and New York markets (Chart I). Compared to the first trading session of the month and the closing values observed during the month under review, prices rose by 18% from US\$1,993 to US\$2,358 per ton in London; and by 14% from US\$2,161 to US\$2,453 per ton in New York. On closer inspection, the bullish trend started soon after the expiry of the SEP-19 contract, which was pricing the tail end of the 2018/19 season, on 13 September. Indeed, the spreading of Cocoa Swollen Shoot Virus Disease (CSSVD) in Ghana and wetter weather conditions prevailing in Côte d'Ivoire raised concerns over the size of the 2019/20 main crop in the first and second largest world cocoa producers. As a result, cocoa futures contract prices gained strength on both the London and New York markets. As shown in Chart II, the US dollar index stagnated whilst the ICCO daily price index was reinforced by 11% over the reviewed month. Hence, the strengthening of cocoa prices was due to market fundamentals and other factors rather than currency fluctuations.

Chart III: Monthly averages of cocoa butter and powder prices in Europe and the United States
October 2018 – September 2019



Source: Commodity Risk Analysis (CRA)

The developments in cocoa butter and powder prices in Europe and the United States, as presented in Chart III indicate that, during the 2018/19 cocoa season, prices for cocoa butter and powder developed in opposite directions on both leading cocoa consuming markets. Indeed, prices for cocoa butter improved by 5% from US\$5,792 to US\$6,085 per ton in the United States, whilst in Europe they declined by 1.5%, moving from US\$5,929 to US\$5,843 per ton. Regarding cocoa powder, as compared to the levels reached at the start of the 2018/19 crop year, prices ebbed by 1% from US\$2,353 to US\$2,330 per ton in the United States. At the same time in Europe, powder prices ascended by 10% from US\$1,826 to US\$2,003 per ton. In addition, compared to their average values recorded in October 2018, the nearby cocoa futures contract prices progressed by 5% and 9% in London and New York respectively at the end of September 2019. They rallied from US\$2,092 to US\$2,193 in London, while in New York they escalated from US\$2,140 to US\$2,341 per ton.

I COCOA SUPPLY AND DEMAND SITUATION

The 2018/19 crop year is over and as at 23 September 2019, cumulative arrivals of cocoa beans in Côte d'Ivoire were reported to have reached 2.164 million tons, up by 10.7% from the 1.954 million tons recorded at the same period last season. During the period 16-22 September 2019, only 4,000 tons of cocoa beans were sent to Ivorian ports, down from 14,000 tons seen a year ago. In addition, the country has exported 1.534 million tons of cocoa beans over the timeframe October 2018–August 2019 against 1.491 million tons during the same period of the 2017/18 cocoa season. According to officials from the Ivorian cocoa sector regulatory body (Le Conseil du Café Cacao), domestic grindings settled at 566,000 tons in the course of the 2018/19 season. As at 3 October 2019, exports of cocoa semi-finished products from Côte d'Ivoire attained 412,577 tons, up by 10% from 374,561 tons recorded a year earlier. At the start of the 2019/20 cocoa season, Côte d'Ivoire and Ghana opened the marketing season by jointly announcing their farmgate prices. In Côte d'Ivoire, the farmgate price of cocoa beans was established at US\$1,394 per ton, up by 10% from US\$1,267 per ton applied last season. Concurrently, in Ghana, the farmgate price of cocoa beans settled at US\$1,528 per ton, 8% higher compared to the level of US\$1,409 per ton seen during the 2018/19 season. Moreover, Côte d'Ivoire's harvest for the 2019/20 cocoa season is envisaged at 2 million tons while in Ghana the crop size is anticipated at 850,000 tons.

I COCOA BAROMETER-2020: COCOA PRICES ARE LIKELY TO GO UP

Cocoa is a food-industrial crop that could play a more important role in poverty reduction for small producers in developing countries worldwide. Every year, the cocoa-chocolate value chain moves billions of dollars, providing important dividends for producing countries and for national and international companies around the world.

Currently, the top ten producers of cocoa in the world are Ivory Coast, Ghana, Cameroon and Nigeria in West Africa; Indonesia in South East Asia; and Ecuador, Brazil, Peru, the Dominican Republic and Colombia in Latin America.

The two main producers are Ivory coast and Ghana. they have a considerably higher level of production than the rest of the countries. These two West African nations account for nearly two thirds of global output (around 65% of the total cocoa bean crops).

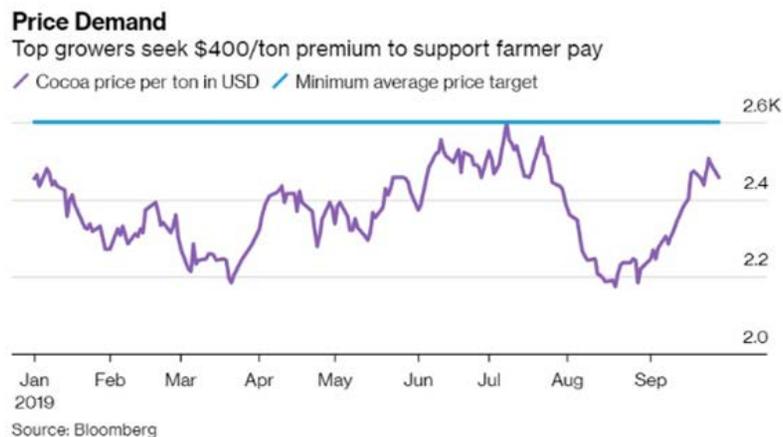
Table Global cocoa production information for 2016

Country	Production (tons)	% of global production	Area harvested (ha)	% of global area
Côte d'Ivoire	1,472,313	33.0%	2,851,084	27.9%
Ghana	858,720	19.2%	1,683,765	16.5%
Indonesia	656,817	14.7%	1,701,351	16.6%
Cameroon	291,512	6.5%	723,853	7.1%
Nigeria	236,521	5.3%	838,046	8.2%
Brazil	213,843	4.7%	720,053	7.0%
Ecuador	177,551	3.9%	454,257	4.4%
Peru	107,922	2.4%	125,580	1.2%
Dominican Republic	81,246	1.8%	172,940	1.7%
Colombia	56,163	1.2%	165,844	1.6%

Source: FAOStat (2018)

The price of the Ghana and Ivory origins Cocoa beans are very high, specially 2020 will see implementation of LID (Living Income Differential) due to the recent implementation of the minimum floor price plan of FOB US \$2,600 per ton for beans purchased from Ghana and Ivory Coast from 2020/21.

Due to the implementation of minimum floor price through a fixed living income differential policies at USD 400 per ton for cocoa beans, this has caused an increase in the raw material price. This is to be noted that, this LID is implemented in addition on top of the typical bean differentials during purchase.



Please contact FSL if you are interested in any of the above products or topics:

Vivek Upreti

Food Specialities Limited
Bakery, Confectionery and Speciality
Ingredients Unit
vivek@foodspecialities.com
+971 4 8069653