Global Agribusiness Leaders

Strategic Developments Newsletter #6
JULY-OCTOBER 2022

By CROPFIELD CONSULTING LIMITED ®

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CROPFIELD CONSULTING LIMITED

Content

Scope

- With this SIXTH Quarterly Newlsetter Cropfield® Consulting continues to monitor the Strategic Developments of the largest Agribusiness Players, the so called ABCD and the others, like Wilmar, Olam, Viterra, EDF Man, CHS, that connect farmers with food companies, retailers and consumer and are responsible for the vast majority of the agribusiness commodities international trade. We provide insights on how they are shaping the Agribusiness world and the Agri & Food value chain.

- Cropfield® Consulting has also been publishing two additional separate quarterly letters: one concerning the Financial Results and Stock performance of the Agribusiness Trading Companies and another one concerning the evolving landscape of the Agtech Companies that are entering the publicly listed markets. Please visit our website www.cropfieldconsulting.com to see /request them

Strategic Developments in the industry

- The table below highlights the Agribusiness industry leaders Key Developments in Q3 2022. The numbers refer to the events illustrated later in the document, classified by type of strategic action

July-October 2022 Strategic Developments	ADM	BUNGE	CARGILL	CHS	LDC
Acquisitions					15 - Australia
Joint Ventures/Partnerships	1 – Singapore; 2, 3, 4, 6 - USA	10 - UK	11, 12 - Singapore		
CAPEX	5 – China; 7 - Serbia		13 - Indonesia		
Divestitures		8 – Mexico; 9- Russia			
Other initiatives				14 - US	

Q3 2022 Key AG Strategic Developments

- **From a Strategic Development perspective, these are July / October 2022 highlights:**

  - Q3 2022 and H1 2022 have been marked by a strong financial performance in the industry (see slides 19&20), well exceeding that of the same period of 2021, with significant cash generation that has spurred share buy-backs (ADM, Bunge) and return of funds to shareholders [CHS, Development 14]

  - July-October 2022 has been characterized by the creation of a number of new partnerships: 8 developments out of 15 concern this kind of transactions, evidencing that Agribusiness is more and more developing in new directions, like: precision fermentation [ADM, Development 1], genomic innovation [ADM, Development 2]; bioplastics [ADM, Development 3]; plant-based alternative diary [ADM, Development 4]; regenerative agriculture [ADM, Development 6]; renewable fuels [Bunge , Development 10]; support to the development of Asian start-ups operating in new food frontier areas [Cargill, Developments 11 &12].

  - Capex announcements have been limited in the period, with ADM announcing the opening of a new Science & Technology Center in China, active in the Health & Nutrition sectors [Development 5] and the opening of a new Extrusion facility in Serbia [Development 7]; and with Cargill announcing the opening of a new $ 100M Corn Wet Mill facility in Indonesia [Development 13]

  - As far as Acquisitions, it has been another quiet period of the year, with just LDC announcing the acquisition of Emerald Grain, a leading grain handling business in Australia [Development 15]

  - Last but not least, the July-October 2022 period has been marked by the return of divestitures in the industry, with Bunge completing the sale of its Mexico Wheat Mills [Development 8] and of its Oilseed processing business in Russia [Development 9]. Its portfolio review has certainly been one of the drivers of Bunge's performance turnaround in the last 3 years

ADM Developments (1/6)

ADM and Temasek's Asia Sustainable Foods Platform Inaugurate ScaleUp Bio Joint Venture

8/1/2022 ***ScaleUp Bio partners with A*STAR for joint lab focused on precision fermentation***

SINGAPORE, 1 AUGUST 2022 – ADM and Asia Sustainable Foods Platform, a company focused on accelerating the commercialization of sustainable foods in Asia, today announced inauguration of their joint venture company, ScaleUp Bio. It is the first company in Singapore to provide contract development and manufacturing organization services for precision fermentation for food applications.

ScaleUp Bio has entered into a multi-year partnership with A*STAR's Singapore Institute of Food and Biotechnology Innovation (SIFBI) to establish a joint lab focused on precision fermentation. Upon maturity of their growth cycle, start-ups can seamlessly transition to ScaleUp Bio's new facility, which can further support up to 10,000L fermentation capacity. Located in the Tuas district, the facility will be wholly owned and operated by ScaleUp Bio and is targeted to be operational by mid-2023.

The joint lab and new facility will provide technological development and precision fermentation for companies producing a wide variety of bio-based products, including alternative proteins, to serve growing consumer demand in Singapore and the wider Asia-Pacific region.

About Asia Sustainable Foods Platform - The Asia Sustainable Foods Platform, a wholly-owned company of Temasek, aims to delight consumers across Asia, by accelerating the commercialization of tasty, nutritious, affordable, and sustainable foods in the region.

About the Agency for Science, Technology and Research (A*STAR) - A*STAR is Singapore's lead public sector R&D agency. Through open innovation, we collaborate with our partners in both the public and private sectors to benefit the economy and society. As a Science and Technology Organisation, A*STAR bridges the gap between academia and industry. Development 1

ADM Developments (2/6)

ADM and Benson Hill Partner to Scale Innovative Ultra-High Protein Soy for North American Food Ingredient Markets

8/8/2022 - CHICAGO & ST. LOUIS--(BUSINESS WIRE)-- **ADM**, a global leader in alternative protein and nutrition products and solutions, and **Benson Hill**, Inc. (NYSE: BHIL), a food tech company unlocking the natural genetic diversity of plants, today announced a long-term strategic partnership to scale innovative soy ingredients that will help meet the rapidly growing demand for plant-based proteins. The partnership will serve a variety of plant-based food and beverage markets to meet savory, sweet and dairy customer needs.
Through the collaboration, ADM will process and commercialize a portfolio of proprietary ingredients derived from Benson Hill Ultra-High Protein (UHP) soybeans through an exclusive North American licensing partnership.

Benson Hill's CropOS® technology platform combines food science, data science and plant science to empower a new era of plant genomics innovation. It brings together powerful data analytics and biological knowledge to combine the genetic information of a plant, formulation needs of a customer, and data from farmers to help develop more nutritious, flavorful, and sustainable ingredients.

The two companies will jointly engage farmer partners seeking opportunities to participate in the seed-to-fork food revolution. (Development 2)

ADM Developments (3/6)

LG Chem and ADM Launch Joint Ventures, Announce Intended Location for U.S. Production of Lactic Acid and Polylactic Acid Production

8/15/2022 SEOUL, South Korea & CHICAGO--LG Chem (KRX: 051910), a leading global diversified chemical company, and ADM (NYSE: ADM), today held a signing ceremony launching two joint ventures for U.S. production of lactic acid and polylactic acid to meet growing demand for a wide variety of plant-based products, including bioplastics. Pending final investment decisions, the joint ventures have chosen Decatur, Illinois, U.S., as the location of their intended production facilities.

The first joint venture, GreenWise Lactic, would produce up to 150,000 tons of high-purity corn-based lactic acid annually. ADM would be the majority owner of GreenWise, and would contribute fermentation capacity from its Decatur bioproducts facility to the venture. The second joint venture, LG Chem Illinois Biochem, would be majority-owned by LG Chem. It would build upon LG Chem's expertise in bioplastics to build a facility that will use product from GreenWise Lactic to produce approximately 75,000 tons of polylactic acid (PLA) per year. Global demand for lactic acid – which is used broadly in food, feed and cosmetics in addition to industrials like bioplastics – was valued at approximately USD 2.9 billion in 2021, with an expected annual growth rate of 8%. Global demand for bioplastics and biopolymers is projected to grow from USD 10.7 billion in 2021 to USD 29.7 billion by 2026, representing annual growth of 22.7%. **About LG Chem** LG Chem is a leading global chemical company with a diversified business portfolio in the key areas of petrochemicals, advanced materials, and life sciences. Headquartered in Seoul, Korea, LG Chem has multiple operation sites worldwide and generated KRW 42.7 trillion (USD 37.3 billion) in sales in 2021. For more information, please visit www.lgchem.com. (Development 3)

ADM Developments (4/6)

ADM and New Culture Announce Strategic Partnership to Scale Up Alternative Dairy Products

8/17/2022 CHICAGO--(BUSINESS WIRE)-- ADM and New Culture, a pioneering animal-free dairy company, have formed a strategic partnership to accelerate the development and commercialization of alternative dairy products. New Culture is leading the global movement to an animal-free dairy future, offering animal-free dairy products that are indistinguishable from conventional products in taste, texture, function, and nutritional content. Beginning with its animal-free mozzarella, New Culture makes products that are better for you, the planet, and our food systems with the power of precision fermentation. In the U.S. alone, dairy is a $70bn market, approximately 30 percent of which is from cheese. However, due to the taste and performance gap of plant-based cheese options, there has been minimal penetration of the animal-free cheese segment with the general public. It is exactly this gap that New Culture's products are addressing. The partnership will enable joint product development, taking advantage of New Culture's innovations in novel ingredients and animal-free dairy products. The companies will work toward accelerating New Culture's food service and consumer applications with the support of ADM's broad portfolio of product development resources and capabilities. The partnership will also include collaborations to advance the commercial scale-up of New Culture's animal-free casein and dairy products.

About New Culture - New Culture is leading the global movement to an animal-free dairy future. We make animal-free dairy products that stretch, melt, and taste like the real deal. By combining traditional cheese-making methods with innovative food science, New Culture offers cheese that's kinder on animals, the planet, and human health. With New Culture's groundbreaking science, any cheese is possible and can be made completely animal-free. In other words: cow cheese without the cow. The future of dairy is here—and it's delicious. For more information, visit www.newculturefood.com. (Development 4)

ADM Developments (5/6)

Ramping Up Local Innovations to Advance High-quality Developments in the Nutrition and Health Industry

9/1/2022 - **ADM Science & Technology China Center Officially Starts Operations**
ADM announced today the opening of its first Science and Technology (S&T) Center in China. Located in the Future Food Science Center of Jiangnan University in Wuxi, Jiangsu Province, the center will leverage ADM's unparalleled research and development (R&D), technology, and product innovation capabilities to spur high-quality development in the nutrition and health industry and meet growing and evolving market needs in China and Asia Pacific (APAC). ADM's S&T China Center will carry out research focused on three key strategic growth platforms - fermentation, microbiome, and foodomics - to develop innovative technologies in the food field, including a focus on research projects directly related to sustainable development, such as plant-based food technology. (Development 5)

Reduce Carbon Intensity by Supporting Regenerative Agriculture Practices on Up to 2 Million Acres of Farmland

9/14/2022 CHICAGO & PURCHASE, N.Y- ADM and PepsiCo today announced a groundbreaking 7.5-year strategic commercial agreement to closely collaborate on projects that aim to significantly expand regenerative agriculture across their shared North American supply chains. This strategic partnership is expected to reach up to 2 million acres by 2030. The long-term agreement will initially enroll corn, soy and wheat farmers across Kansas, Minnesota, Iowa, Illinois, Indiana and Nebraska, with the opportunity for future expansion, to increase visibility across the value chain and integrate a range of multi-year farmer-first regenerative agriculture initiatives, including cover crops, reduced tillage, nutrient management, diverse rotations, and responsible pesticide use.
Reaching the strategic partnership's goals could eliminate 1.4 million metric tons of greenhouse gasses – equivalent to the amount of electricity used to power 275,000 homes per year – at the farm level, while creating meaningful shared value directly for farmers. (Development 6)

ADM Developments (6/6)

ADM Opens New Extrusion Facility in Serbia, Meeting Accelerated Demand for Textured Soy Proteins

9/19/2022 CHICAGO -ADM announces the opening of a new extrusion facility in Serbia. This comes less than a year after ADM's acquisition of European provider of non-GMO soy ingredients, SojaProtein. With the combined efforts of ADM and SojaProtein, the facility will further expand ADM's footprint in Europe, extending its production of non-GMO textured soy to include vital origination and extrusion capabilities.

The facility is set up to produce non-GMO soy proteins, which is a highly sought-after assertion not only in Europe, but around the world. Globally, 75% of consumers look for non-GMO claims on protein content[1].

Unique to the European region, ADM will now offer both origination and extrusion capabilities, extending the high-quality, non-GMO solutions currently available from ADM's acquisition of SojaProtein. This is made possible due to 90% of the soy sourced grown within 100 kilometers of the facility, enabling a local supply chain. (Development 7)

Bunge Developments (1/2)

Bunge Completes the Sale of its Mexico Wheat Mills

09/14/22 St. Louis – Bunge Limited announced today that it has completed the sale of its wheat mills in Mexico to Grupo Trimex. Bunge will continue to operate its corn mill in Querétaro and to serve its domestic oil and meal customers. (Development 8)

Bunge Agrees to Sell Oilseed Processing Business in Russia

09/19/22ST. LOUIS--Bunge today announced that it has agreed to sell its oilseed processing business in Russia to Karen Vanetsyan, the controlling shareholder of Exoil Group. The sale includes the sunflower processing plant in Voronezh. The completion of the sale is subject to customary closing conditions, including regulatory approval.

“We are grateful to the team for continuing to deliver essential food and feed in this challenging environment. With Karen Vanetsyan's more than 25 years of experience in agricultural processing, we are confident the team will continue to successfully serve customers,” said Greg Heckman, Bunge’s CEO.(Development 9)

Bunge Developments (2/2)

Olleco and Bunge Agree to Joint Venture to Create a Full Life-Cycle Oil Collection Business in Europe

10/13/22 ST. LOUIS & SHREWSBURY U.K.--Bunge (NYSE: BG), a leading producer of plant-based oils, and Olleco, the renewables division for ABP Food Group, today announced an agreement to form a 50/50 joint venture to create a business that encompasses the full life-cycle of edible oils.

The joint venture is expected to work with foodservice and food manufacturing customers in Europe - excluding UK and Ireland - to supply oils and ensure the used cooking oil (UCO) is efficiently collected and used as a feedstock in the production of renewable fuels. The solutions and services to be offered will help address environmental and energy security challenges from key markets in Europe.

The partnership, headquartered in Amsterdam, is expected to leverage Bunge's customer relationships, footprint and global expertise in vegetable oil production and Olleco's market leading model in the supply, collection and conversion of cooking oils

(Development 10)

Cargill Developments (1/3)

Cargill launches Asia Pacific digital business studio with support from the Singapore Economic Development Board to accelerate food and agriculture innovation

SINGAPORE (Sept. 6, 2022) — Cargill is partnering with the Singapore Economic Development Board (EDB) to launch its first digital business studio in Asia. The studio is designed to support local founders with investments that bring Cargill solutions to the market and accelerate innovation for the food and agriculture industry in Asia-Pacific.

Through this three-year partnership, Cargill will develop a portfolio of at least five new startups in Singapore. The startups will focus on pressing industry challenges—from increasing access to market data for smallholder farmers to creating more efficient, transparent and cost-effective food supply solutions. Learn more about the Cargill digital business studio HERE.

This partnership builds on EDB's efforts to grow Singapore's corporate venturing movement, encouraging companies to build new businesses with start-up like agility. This includes investing in growth areas beyond their core businesses to keep ahead of the fast-changing pace of disruption. (Development 11)

Cargill Developments (2/3)

Asia-Pacific Scale It Up! Innovation Challenge gives plant-based food start-ups the opportunity to bring their projects to market faster

Singapore, SG, September 06, 2022 – Bühler, Cargill and Givaudan have joined forces to help accelerate start-ups who are innovating in plant-based protein, to address the needs of a growing global population.
During the program, start-up companies who register and submit their project will gain visibility to the larger, plant-based protein ecosystem and be able to network and collaborate with others on a similar journey. One winner and one runner-up will be chosen and provided ongoing support that will help them scale their product for market introduction.

The Scale It Up! Innovation Challenge will provide resources, mentorship, and expertise to start-ups with innovative solutions for plant-based meat or seafood alternatives. The three sponsoring companies are all active in the production of sustainable, plant-based protein ingredients, each focusing on differing parts of the value chain and each bringing their unique expertise to the challenge. The Scale It Up! Innovation Challenge will provide resources, mentorship, and expertise to the challenge winners. (Development 12)

Cargill Developments (3/3)

Cargill inaugurates corn wet mill in Pandaan to meet the growing customer needs in starches, sweeteners, and feed markets in Asia and Indonesia

Pasuruan, September 8th, 2022 – Cargill today inaugurates its corn wet mill in Pandaan, Pasuruan, Surabaya, in an effort to meet the growing demand in starches, sweeteners and feeds markets in Asia and Indonesia. This USD 100 million (IDR 1.3 trillion) facility, built during the pandemic, is also expected to benefit local economy by creating up to 4,000 new jobs and employment opportunities, and help with the development of Indonesia's food and beverage industry.

The new corn wet mill has adopted advanced technologies, such as industry 4.0 practices, to optimize automation in the whole process from mill to packaging using robotics systems. The new facility has also applied the highest standards in waste management and water conservation, reducing electricity and water consumption, as well as maximizing the effectiveness of wastewater purification.
In addition, to support biodiversity conservation, Cargill has also established an ecosystem management model through a land rehabilitation program by planting more than 60,000 trees. Construction of the new plant started in 2020, and Cargill implemented strict safety and health protocols, including those for containing COVID-19. No accidents occurred during the construction phase, with more than 4.7 million safe working hours recorded. (Development 13)

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CHS Developments

CHS intends to return $1 billion in cash to owners

Sep 14, 2022 - CHS Inc., the nation's leading agribusiness cooperative, intends to return a total of $1 billion in cash patronage and equity redemptions to its owners in calendar year 2023, delivering on its objectives to share profits with owners and contribute to building strength in rural America.

The total amount of cash to be returned to owners is a decision made by the CHS Board of Directors at the close of each fiscal year. The CHS Board has elected to return $500 million in cash patronage based on business done with CHS in fiscal year 2022, which ended on Aug. 31, 2022. Additionally, the CHS Board has elected to return $500 million in cash to its owners through equity redemptions.

This benefit of CHS ownership will be shared by hundreds of member cooperatives and thousands of farmer-owners. The total of $1 billion distributed in cash would be the largest annual distribution to owners in CHS history and would bring the total amount returned to owners over the last 10 years to more than $3.1 billion (Development 14)

LDC Developments

Louis Dreyfus Company and Longriver Farms Enter Into a Sale & Purchase Agreement for Emerald Grain || Louis Dreyfus Company (ldc.com)

Singapore, September 26, 2022 – Louis Dreyfus Company Asia Pte. Ltd. (LDC) and Longriver Farms announced today that the companies have entered into an agreement for the acquisition of Emerald Grain Pty. Ltd. (Emerald Grain) by LDC.

Emerald Grain is a leading grain handling business in Australia, with a network of seven grain storage and receival sites across the states of New South Wales and Victoria, with a combined storage capacity of approximately one million metric tons, as well as a grain export terminal at the Port of Melbourne and marketing offices in Geraldton, Western Australia and Moama, New South Wales.

Thanks to its ties with some 10,000 Australian farming families, an integrated supply chain and an experienced and dedicated team, Emerald Grain offers customers a broad range of grains products, including wheat, barley and canola, for export across Australia. The agreement is subject to regulatory approvals and customary closing conditions.

(Development 15)

Agribusiness Cos Q3 & H1 2022 Financial Performance

GLOBAL AG TRADING HOUSES FINANCIAL PERFORMANCE - Q3 & H1 2022							
USD Million	ADM Q3	BUNGE Q3	CHS 03/05	LDC H1	OLAM H1	VITERRA H1	WILMAR H1
Turnover	24,683	16,579	13,100	30,300	20,180	25,030	36,134
EBITDA	1,580	752	534	1,170	816	1,222	2,350
EBIT	1329	599	401	878	570	747	1,781
Net Income	1031	420	577	760	280	569	1,165
EPS	1.84	3.42	n/a	n/a	n/a	n/a	18.5
EPS LAST Q3 / H1 2021	0.97	3.72	n/a	n/a	n/a	n/a	11.9
EPS Q3 2022 vs 2021	90%	-8%	n/a	n/a	n/a	n/a	55%
EBITDA Margin	6.40%	4.54%	4.08%	3.86%	4.04%	4.88%	6.50%
EBIT Margin	5.38%	3.61%	3.06%	2.90%	2.82%	2.98%	4.93%
Net Income Margin	4.18%	2.53%	4.40%	2.51%	1.39%	2.27%	3.22%
EBITDA Margin Q3 2021	7.14%	7.80%	6.29%	3.25%	4.11%	5.00%	6.38%
EBIT Margin Q3 2021	3.51%	5.55%	2.61%	2.26%	2.82%	3.38%	5.04%
Net Income Margin Q3 2021	2.69%	4.63%	2.51%	1.40%	1.85%	2.08%	2.48%
Market Cap 29.10.21	35,938	13,018	n/a	n/a	4,649	n/a	20,192
Market Cap 28.10.22	51,709	14,865	n/a	n/a	3,549	n/a	15,995
Delta Market Cap	30.5%	12.4%	n/a	n/a	-31.0%	n/a	-26.2%

Comments on Q3 & H1 2022 Financial Performance

- THE PERFORMANCE OF AGRIBUSINESS COMPANIES IN 2022
- **Cropfield Consulting** has compared large Agribusiness companies' performance in Q3 2022 vs Q3 2021 and H1 2022 vs H1 2021 and among themselves
- Comparing 2022 vs 2021 result we can observe
- 1. Turnover increased for all companies, driven by higher soft commodity prices
- 2. EBITDA increased in 5 out 7 cases
- 3. EBIT increased in 6 out of 7 case (only exception Bunge)
- 4. Net income increased in 6 out of 7 cases (only exception Olam)
- 5. EBITDA margin increased in 5 cases out of 7
- 6. EBIT margin increased in 4 cases out of 7
- 7. Net income margin increased in 5 cases out of 7
- 8. Market cap increased 2 times (ADM and Bunge) and decreased 2 times (Olam and Wilmar, reflecting lower valuations related to the Singapore stock exchange, related to Asia / China).
- Comparing the different companies' performance we can observe that ADM and Wilmar have the best margins; ADM and Bunge have the best P/E ratios
- Above results confirm the strong health of the industry, helped by strong demand, weather, geopolitics, logistic bottlenecks, high energy prices

Who we are

- Cropfield Consulting, est. 2020
- Nicola Chiaranda, Owner & Managing director
- 30+ years' corporate career in public US, French and Italian multinational groups in Agribusiness & Food (Bunge, Cargill, Cerestar, Eridania Beghin-Say)
- Global CFO, VP Strategy & Business Development, VP Performance Improvement
- Conducted large number of Mergers & Acquisitions (acquisitions and divestitures) and large-scale change management
- Optimization of processes and controls, Implementation of new systems
- Raised capital via debt, equity and IPOs
- Currently Professor of Private Equity, University of Venice (Italy)
- Large network of senior subject matter experts available on demand
- www.cropfieldconsulting.com

What we do in Agribusiness & Food

- We sit in public and private companies' boards, advisory committees, investment funds investment committees

- We study and discuss the client's mission, vision and strategy together with owners/top management, with a strong focus on value creation, and:

1. **we help with growth**, helping with M&A activities (identify target companies, build a pipeline, contact targets, evaluate, negotiate, close deals, integrate targets) and with corporate finance (raise debt, equity, IPOs, divest businesses, work to reduce the cost of capital)

2. **we help improving operations** in specific areas, particularly SG&A related (identify performance issues, source other specialists as needed, benchmark, set targets, design plans to achieve them, help with execution)

How we can help in Agribusiness & Food

1. We have a first conversation with owners / top management to understand the strategy together with the situation and the current issues
2. We prepare a document indicating areas of focus and how we can help to move from current state to desired state
3. We work together with management to build a detailed action plan, with milestones and KPIs
4. If desired, we support or even drive the execution of the plan
5. Our fee model has two components: a retainer and a success fee component to align our incentives with client benefits

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