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The International Business Magazine for Grain, Flour and Feed

July 2021

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India's agriculture conundrum

After 60 years of operating in a planned economy, India's agricultural sector is changing course. Last fall, after contentious debate, India's parliament passed three laws designed to liberalize sales of agricultural products and pave the way for the country to become a powerhouse exporter.

Advocates of the new free market system say allowing the private sector to play a bigger role will spur land consolidation and investment in mechanization, as well as generate economies of scale that will greatly enhance productivity. Instead of selling their crops to the government at a minimum support price (MSP) in local, state-regulated markets, farmers can sell their harvest via contracts nationally to a much wider range of private actors. The government contends this will increase farmers' incomes and lower food prices. While free markets generally function better than government-controlled economies, there are legitimate concerns that the situation for India's smallholder farmers will go from bad to worse. More than 80% of ag producers in India are categorized as smallholder farmers and the livelihoods of nearly 60% of the country's 1.36 billion people are tied to agriculture. Those are jaw-dropping numbers in this increasingly high-tech, urbanized world. In most developed countries agriculture comprises less than 5% of the labor force. In China and Indonesia, two developing countries often compared with India, the percentages are 27% and 32%, respectively.

Under the planned economic system that has been in place since the Green Revolution of the 1960s, the government purchases crops — mostly wheat and rice — at an MSP, stores them in government-operated warehouses, and distributes them at a subsidized price. Initially, the strategy helped India free

itself of dependence on foreign food aid and become self-sufficient in grain. But it has increasingly encouraged overproduction and poor agronomic practices. Perennially ranked No. 2 in wheat and rice production, India is anticipating record output in both crops this year. Unfortunately, a significant amount ends up rotting in government warehouses.

It is also worth noting that rice and wheat combine for 70% of the world's total water usage on crops. With 20% of the world's population, India has only 4% of the world's water, but the country is the largest extractor of groundwater, with 90% used for agriculture. A 2017 study predicted that Punjab, the nation's largest grain-producing region, would exhaust its groundwater supply by 2039.

It's not that India's farmers have been happy with the MSP system, which only impacts a limited number of farmers since wheat and rice are the only crops the government buys in sufficiently large quantities. But they fear a free-market approach will allow large corporations to gain more control over production and make it impossible for them to compete. So the choice is to proceed with the free-market reforms, which can create a more vibrant sector and increase India's potential as an exporter but also may strip millions of farmers of their livelihoods, or capitulate to the protesting farmers and keep some form of the planned system, which has left most farmers at or below the poverty line and encourages overproduction of crops that are taxing the country's soil quality and water supply. Either way, there will be painful consequences.

Arvin Donley
Editor



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AUGUST

Aug. 6-9

GEAPS Exchange 2021

Location: Columbus Convention Center, Columbus, Ohio, US **Contact:** GEAPS
Tel: 1.763.999.4300 **Fax:** 1.763.710.5328
Email: info@geaps.com
Internet: www.geaps.com

Aug. 17-19

American Feed Industry Association Purchasing and Ingredient Suppliers Conference

Location: Hyatt Regency Grand Cypress, Orlando, Florida, US **Contact:** AFIA
Tel: 1.703.524.0810 **Email:** afia@afia.org
Internet: www.afia.org

Aug. 29-Sept. 2

International Association of Operative Millers (IAOM) 125th Annual Conference & Expo

Location: Little Rock Marriott and Statehouse Convention Center in Little Rock, Arkansas, US **Contact:** IAOM **Tel:** 1.913.338.3377
Fax: 1.913.338.3553 **Internet:** www.iaom.info

Aug. 31-Sept. 2

IAOM-KSU Flour & Dough Analysis

Location: IGP Institute Conference Center, Manhattan, Kansas, US **Contact:** IGP Institute
Tel: 1.785.532.4070 **Email:** igp@ksu.edu
Internet: https://www.iaom.info/event/iaom-ksu-flour-dough-analysis/

SEPTEMBER

Sept. 7-9

2021 Liquid Feed Symposium

Location: Hilton Chicago Oak Brook, Chicago, Illinois, US **Contact:** AFIA **Tel:** 1.703.524.0810 **Email:** info@ippexpo.org
Internet: www.afia.org/

Sept. 13-17

IAOM-KSU Basic Milling Principles

Location: IGP Institute Conference Center, Manhattan, Kansas, US **Contact:** IGP Institute
Tel: 1.785.532.4070 **Email:** igp@ksu.edu
Internet: https://www.iaom.info/event/12610/

Sept. 20-24

IAOM-KSU Advanced Milling Principles

Location: IGP Institute Conference Center, Manhattan, Kansas, US **Contact:** IGP Institute
Tel: 1.785.532.4070 **Email:** igp@ksu.edu
Internet: https://www.iaom.info/event/iaom-ksu-advanced-milling-principles-3/

Sept. 21-23

Women in Agribusiness Summit North America

Location: Hyatt Regency Minneapolis, Minneapolis, Minnesota, US/virtual option **Contact:** HighQuest Group
Tel: 1.978.887.8800 **Email:** eventinfo@highquestgroup.com
Internet: https://www.womeninag.com/

OCTOBER

Oct. 6-8

Export Exchange 2021

Location: Kansas City, Missouri, US
Contact: US Grains Council
Tel: 1.202.789.0789
Email: info@exportexchange.org
Internet: https://grains.org/exportexchange/

Oct. 6-10

North American Millers' Association Annual Meeting

Location: Boca Raton Beach Club, Boca Raton, Florida, US **Contact:** NAMA
Tel: 1.202.484.2200 **Fax:** 1.202.488.7416
Email: generalinfo@namamillers.org
Internet: www.namamillers.org

Oct. 8-10

Feed Tech Expo

Location: Auto Cluster Exhibition Center, Pune, India **Contact:** BENISON Media
Tel: +91 184 404 7817
Email: feedtechexpo@gmail.com
Internet: http://feedtechexpo.com/

Oct. 10-12

International Association of Operative Millers (IAOM) Mideast & Africa 31st Annual Conference and Expo

Location: Dubai, United Arab Emirates
Contact: IAOM MEA **Tel:** +968 2439 8760/67
Fax: +968 2439 8748 **Email:** info@iaom-mea.com
Internet: www.iaom-mea.com/

Oct. 25-27

World Grain Summit 2021

Location: Rome, Italy **Contact:** ICC
Tel: +43170772020 **Email:** office@icc.or.at
Internet: http://www.wholegrainsummit.com/en/

NOVEMBER

Nov. 3-5

2021 Equipment Manufacturers Conference

Location: Omni Royal Orleans Ho
Tel: New Orleans, Louisiana, US
Contact: AFIA **Tel:** 1.703.524.0810
Email: info@ippexpo.org
Internet: www.afia.org/

DECEMBER

Dec. 1-2

Organic and Non-GMO Forum

Location: Hyatt Regency, Minneapolis, Minnesota, US **Contact:** HighQuest Partners
Tel: 1.978.887.8800
Email: eventinfo@highquestgroup.com
Internet: www.orgforum.com/

For a 12-month listing of 2021 industry events, see the 2021 International Buyers' Guide or visit www.World-Grain.com. Send your event details to: worldgrain@sosland.com or Fax 1.816.756.0494.

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Registration open for 125th IAOM Annual Conference & Expo in August

Hundreds of milling professionals from across North America and around the world will gather in person for the International Association of Operative Millers' (IAOM) 125th Anniversary Conference & Expo from Aug. 29-Sept. 2 in Little Rock, Arkansas, US. Last year's event was canceled because of the coronavirus (COVID-19) pandemic.

The IAOM Annual Conference & Expo is a premier educational event for grain milling professionals. The annual event gathers milling and allied trade professionals from around the world for three days of education, networking and fellowship. Educational and technical programs presented at the conference assist millers in improving yields, productivity, customer satisfaction and safety.

In addition, the annual conference includes one of the world's largest expos for milling professionals, typically featuring over 100 companies displaying milling and processing equipment and related services.

Cordia Harrington, chief executive officer and founder of Crown Bakeries, will give the keynote address at 7:30 a.m. on Aug. 31. The educational programming is divided into different tracks covering product protection, technical operations, employee management and facility management.

The event concludes with the Annual Banquet & Awards Ceremony on Sept. 1 at the Little Rock Marriott Hotel. The evening starts at 6 p.m. with a reception followed by the conclusion of the IMEF Silent Auction and awards.

For more information and to register, visit www.iaom.org.

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Coceral: EU could become net grain importer

BRUSSELS, BELGIUM — Under its new “Farm to Fork” strategy, the European Union will see reduced grain production and could become a net importer, according to an impact assessment from Coceral, a European association representing the trade in cereals and other agricultural products.

The strategy aims to curb the environmental impact of agriculture, which is the most frequently reported source of pressure on Europe’s habitats and species and is responsible for 10% of EU greenhouse gas emissions.

During Coceral’s June 23 online presentation concerning the new policy, which proposes expanding organic production to 25% of farmland from the current 8% as well as cutting pesticide use, stakeholders warned of unintended consequences.

“So we are not (going to be) one of the big exporters anymore but maybe one of the big importers,” said Oliver

Balkhausen, director of economic research at Archer Daniels Midland Co. (ADM) and Coceral board member.

In its assessment, Coceral said the EU’s environmental goals could lower wheat production from the currently projected 128 million tonnes to 109 million tonnes by 2030.

Coceral also concluded the environmental goals could increase the EU’s reliance on oilseed imports by cutting rapeseed output, leading to the importation of more than 10 million tonnes of rapeseed a year compared to the current 6 million.

Coceral said the assessment that was presented during the online event was not academic in nature nor based on intricate modeling, but rather an empirical evaluation put together by analysts and business operators from a dozen companies and national associations (members of Coceral) that looked at how the EU’s agricultural production would be transformed.

Richardson plans new elevator in Saskatchewan

WINNIPEG, MANITOBA, CANADA — Richardson Pioneer Ltd. on June 14 announced plans to build a new high throughput grain elevator in Carmichael, Saskatchewan, located 65 kilometers west of Swift Current, Saskatchewan.

Construction began in early June and is expected to be completed by the fall of 2022.

Richardson said the new elevator will include 46,000 tonnes of storage capacity with a loop track rail design capable of loading 175 high cube rail cars. The facility will feature high-speed receiving and loadout, with a high-capacity grain-cleaning system.

Immediately following completion of the new elevator,

Richardson will proceed with the construction of crop inputs assets, including a high-speed fertilizer blender with storage and a 10,000-square-foot AWSA-certified warehouse — both of which will be fully operational by the fall of 2023.

“Richardson has maintained a significant presence and loyal customer base in the southwestern part of the province and will continue to seek opportunities for improving operational efficiencies,” said Tom Hamilton, senior vice president, agribusiness operations. “With the addition of the new facility at Carmichael, we look to bridge our historical presence in the area with the realities of meeting our grower customers’ evolving business needs.”

Mennel Milling introduces small pack flour

FOSTORIA, OHIO, US — Mennel Milling is expanding its packaging capabilities by offering small pack flour sizes.

In addition to the company’s 25-, 40-, and 50-pound bags, bulk trailer, and rail car-sized order options, Mennel Milling’s flour is now available in 2-, 5-, 10- and 25-pound bags.

Small pack products are available in most flour varieties, including soft, hard, spring, and organic wheat flour, custom blends, and thermally processed and ready-to-eat flour.

Due to recent shortage of family-sized flour, Mennel Milling said it expanded its packaging capabilities to meet the changing needs of its customers and consumers.

Operating for more than 130 years, Fostoria, Ohio-based Mennel Milling is the seventh largest flour milling company in North America with a daily production capacity of 68,000 cwts, according to Sosland Publishing Company’s *2020 Grain & Milling Annual*.

A Note to Our Readers

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■ Wheat Initiative discussed at MACS-G20 meeting

BERLIN, GERMANY — At the G20 Meeting of the Agricultural Chief Scientists (MACS-G20) in June, Wheat Initiative participants stressed the importance of scientific research that is based on internationally consistent regulation.

Representing the Wheat Initiative during the meeting were Peter Langridge, chair of the scientific board, and Teresa Saavedra, program manager.

They noted that a major focus of the recent Wheat Initiative activities has been wheat genetic improvement combined with agronomic interventions to address crop adaptability and reduced reliance on external inputs of fertilizers, pesticides and irrigation water.

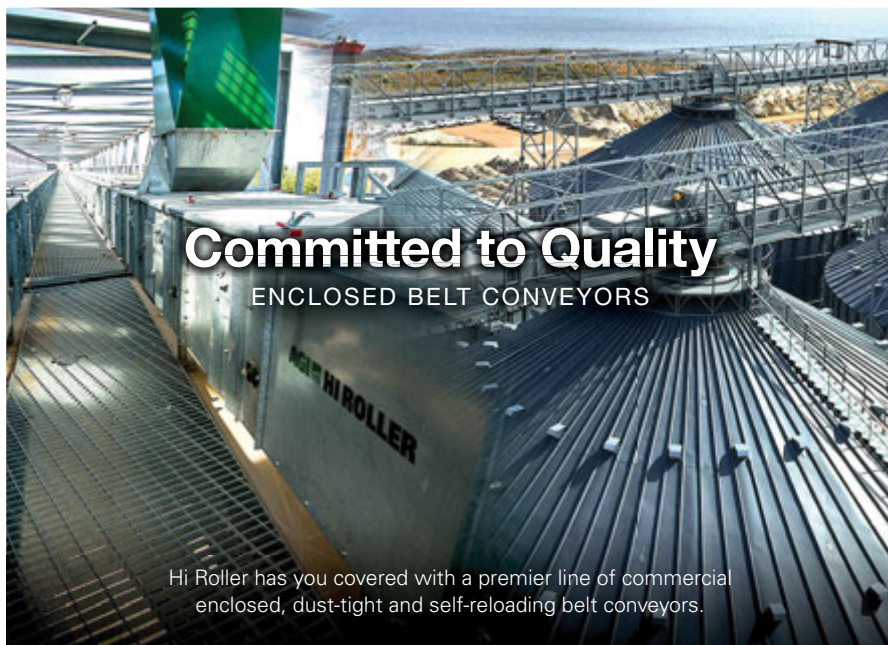
Langridge said researchers in both the public and private sector recognize the importance of a strong science-based regulatory framework, which recognizes the long and safe deployment of diverse technologies for wheat improvement.

He said it should also ensure that “regulation is science-based and addresses quantifiable risks and hazards, aims for regulatory consistency across jurisdictions, and recognizes that we will gain experience and information from the use and deployment of new breeding technologies, and the regulatory framework should have sufficient flexibility to adapt in response to new information on risks.”

Wheat was selected for a specific initiative due to its critical role in global food security since it accounts for 20% of protein and 20% of the carbohydrates in the diets of 2.5 billion people.

However, evolving transboundary pest and diseases and the impacts of climate change threaten global wheat production, with multiple studies consistently indicating a 7% decline in yield for every degree increase in temperature.

The Wheat Initiative was launched at the 2011 G20 meeting in Italy.



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NEWS REVIEW

■ San Miguel plans to build seven new feed mills

MANILA, PHILIPPINES — San Miguel Food and Beverage Inc. said it will spend 30 billion pesos (\$627.7 million) mainly to expand its feed milling business, the *Manila Standard* reported.

The company plans to build seven new feed mills worth \$50 million each, said Ramon Ang, president and chief executive officer of San Miguel Food and Beverage, during the company's annual stockholders meeting.

The company also is expanding its feed mill capacity in facilities in Isabela, Davao, Cebu and Bulacan.

"We are seeing encouraging signs amid the mass vaccination program of the government and continued

easing of restrictions," Ang said.

The company also is planning to replicate its integrated industrial complex in Sariaya, Quezon, which includes a feed mill, dressing plant, housing and community projects to address the needs of the residents near the area.

"This model is very successful, and we are trying to do this all over the country in all the regions where we plan to build integrated food manufacturing complex," Ang said.

SMFB returned to profit in the first quarter, posting consolidated net income of P9.68 billion, up 66% from the same period last year. Consolidated sales reached P76.36 billion, up 11% from the same period in 2020.

■ EU feed production remains stable

BRUSSELS, BELGIUM — Industrial compound feed production in the European Union (EU) remained stable in 2020 despite the combined effect of the spread of animal diseases and the COVID-19 pandemic, according to a June 7 report from the European Feed Manufacturers' Federation (FEFAC).

EU compound feed production (EU 27+UK) for farmed animals in 2020 is estimated at 164.9 million tonnes, an incremental increase of 0.1% compared to 2019, according to data provided by FEFAC members. Despite the pandemic and its heavy impact on the hospitality and tourism industry, the European compound feed industry managed to keep its production at a stable pace, contrary to early predictions.

In November 2020, FEFAC projected 2020 EU feed production at 161.4 million tonnes, a decrease of

2.2% compared to 2019.

While cattle and poultry feed saw a decline, all other sectors experienced production growth compared to 2019.

The decrease of 0.8% in poultry feed production, which is the first recorded in 10 years, is a result of the combined effect of the spread of Avian Influenza (HPAI) and COVID-19 lockdown measures. In 2020, there were two seasons of the HPAI epidemic in Europe depressing the poultry sector. In the earlier months of 2020, the disease was detected in Poland, the Czech Republic, Germany, Romania and Hungary, while in autumn the disease hit the Netherlands, Denmark, France, Ireland and Poland and Germany again.

The most affected country was Hungary after the virus entered the area with a high density of ducks and geese holdings.

■ Cherkizovo to build feed mill in Russia

ST. PETERSBURG, RUSSIA — Cherkizovo Group, Russia's largest meat producer, has unveiled plans to build a 130-tonne-per-hour feed mill and complete the second phase of a silo with a one-time grain storage capacity of 220,000 tonnes in the Lipetsk Region in Russia.

The company said it plans to invest

RUB 3.5 billion (\$44.4 million) in the feed mill and RUB 2 billion (\$27.7 million) in the silo.

The feed mill and silo projects are part of a broader RUB 22.5 billion (\$311.4 million) that Cherkizovo envisions spending on projects in the Lipetsk Region.

■ POET boosts capacity with Flint Hills acquisition

ST. JOSEPH, MISSOURI, US — POET, the world's largest producer of biofuels, has acquired the bioethanol assets of Wichita, Kansas, US-based Flint Hills Resources, a move that will expand the company's production capacity by 40%.

Under terms of the transaction, POET has acquired six bioprocessing facilities located in Iowa and Nebraska and two terminals in Texas and Georgia. According to Flint Hills, the combined capacity of the six plants is approximately 800 million gallons per year. The facilities also produce 1.5 million tonnes of distillers grains and 170 million pounds of corn oil annually.

POET operates 33 bioprocessing facilities across eight states with a combined annual capacity of 3 billion gallons.

"This acquisition will increase POET's ability to bring even

more high-quality, plant-based biofuels and bioproducts to the world — allowing us to have an even bigger impact on fighting climate change and cleaning our air," said Jeff Broin, founder and chief executive officer of POET. "We've been a leader in the biofuels business for 33 years and have never wavered in our belief in the power of agriculture and biofuels to offer the most accessible, near-term solution to climate change," Broin said. "With this move, we're demonstrating our commitment to the future of low-carbon, plant-based liquid fuels."

Jeff Lutt, president and CEO of POET, added, "These high-quality bioprocessing facilities have been well-maintained and strategically complement POET's current geographic footprint, allowing us new flexibility and greater market access."

■ Ceres Global Ag subpoenaed by justice department

MINNEAPOLIS, MINNESOTA, US — Ceres Global Ag Corp. on June 18 announced that the corporation and some of its current and former personnel have received subpoenas from the US Department of Justice to produce documents and other records regarding its trading and other related activities, with a particular focus on Ceres' oat market trades from 2016 to 2019.

Ceres, a global agricultural, energy and industrial products merchandising and supply chain company, said it also received a voluntary document request from the US Commodities Futures Trading Commission seeking similar information.

Ceres said it has cooperated, and will continue to cooperate, with both investigations, and that "more information will be provided in due course as is appropriate."

Ceres is headquartered in Golden Valley, Minnesota, US,

and together with its affiliated companies, operates 13 locations across Saskatchewan, Manitoba, Ontario, and Minnesota. These facilities have an aggregate grain and oilseed storage capacity of approximately 31 million bushels.

Ceres has a 50% interest in Savage Riverport, LLC (a joint venture with Consolidated Grain and Barge Co.), a 50% interest in Farmers Grain, LLC (a joint venture with Farmer's Cooperative Grain and Seed Association), a 50% interest in Gateway Energy Terminal (an unincorporated joint venture with Steel Reef Infrastructure Corp.), a 25% interest in Stewart Southern Railway Inc. (a short-line railway located in southeast Saskatchewan with a range of 130 kilometers), and a 17% interest in Canterra Seed Holdings Ltd. (a Canada-based seed development company).

■ LifeLine Foods celebrates 20th anniversary

ST. JOSEPH, MISSOURI, US – LifeLine Foods, the third-largest corn miller in the United States, celebrated its 20th year in business in June.

LifeLine Foods, established in 2001, operates out of a 780,000-square-foot manufacturing facility in St. Joseph, Missouri, US, employing 180 people. It is co-owned by more than 650 family farmers located in four Midwestern states and ICM Biofuels in Colwich, Kansas, US.

"People will always be our greatest asset and we wouldn't be able to produce the highest quality corn ingredients on the market without our outstanding farmer-owners and staff," said Kevin Kelly, chief executive officer of LifeLine Foods. "Our footprint in the marketplace has grown and our business has flourished over the past two decades. When LifeLine started back in 2001, we offered four different products, had one business unit, and had just 150-plus farmer owners. Fast forward to today and we offer over 25 products, have six business units, and over 650 farmer owners."

LifeLine Foods' corn ingredients can be found in a wide range of products such as corn dogs, corn puffs, tortillas, tortilla chips and beer.



The company said it is a part of the Global Food Safety Initiative and utilizes a specific model to produce not only food, but also fuel to ensure that every product generated is used and there is zero waste.

"We will continue to focus on ways to enhance sustainability and implement efficient solutions into our business practices," Kelly said.

LifeLine Foods has undergone a number of expansions in recent years, including the completion of its \$12 million masa mill expansion in September 2020.

GROWMARK CEO plans to retire in early 2022

BLOOMINGTON, ILLINOIS, US — Jim Spradlin, GROWMARK’s chief executive officer since September 2014, announced to the board of directors on June 10 his intent to retire effective Feb. 28, 2022.

“Jim has served the GROWMARK System with excellence since 1982,” said John Reifsteck, chairman of GROWMARK. “His leadership as CEO has been transformational, and he will leave a legacy of innovation in digital technology, leadership development, succession planning, and the establishment of an enterprise-wide strategy that is yielding increased customer satisfaction and financial success.”

Spradlin joined the FS/GROWMARK System as an

accounting trainee at Schuyler-Brown FS. He has held many leadership roles, including as the general manager of Piatt County Service Co. and Ag-Land FS, positions on GROWMARK’s regional staff, and as vice president for GROWMARK’s Agronomy and Energy business units.



Spradlin

Reifsteck noted that the GROWMARK board has initiated a search process to select Spradlin’s replacement.

“Ideally, a new CEO will be named in the fall and benefit from working alongside Jim into early 2022,” Reifsteck said.

A retirement celebration for Spradlin is being planned.

Details emerge on Russian port development project

ST. PETERSBURG, RUSSIA — United Grain Co. (OZK), Demetra-Holding and Federal State Unitary Enterprise Rosmorport have reached agreement to develop the necessary infrastructure for organizing the transshipment of grain cargo in the seaports of the Russian Federation. The announcement was made within the framework of the XXIV St. Petersburg International Economic Forum on June 3.

The partners plan to build a new pier in the form of a double-sided pier at the head of the existing pier No. 3 in the port of

Novorossiysk, which will allow for the receipt of Panamax class ships, a grain gallery and a complex of auxiliary and infrastructure structures, and also dredge.

The partners said the development of port facilities for transshipment of grain cargo will ensure the fulfillment of the instructions of the President of the Russian Federation Vladimir Putin to increase the export of agricultural products.

The new pier will double the transshipment capacity at the site to about 25 million tonnes from 13.6 million, while increasing capacity of one-time storage to 870,000 tonnes from 370,000.

“UGC Group is implementing a large-scale investment program aimed at deep modernization of PJSC NKHP, increasing grain storage and shipping capacities,” said Dmitry Sergeev, general director of OZK, an infrastructure and trading company. “The result of the implementation of this project will be an increase in the export attractiveness of domestic wheat in global markets, a comprehensive development of the internal infrastructure of the Russian grain market.”

Vitaly Sergeichuk, general director of Demetra-Holding, the largest vertically integrated grain holding company in Russia, added, “We are actively working to increase transshipment port capacities, and we approach this issue in a comprehensive manner, developing the entire chain of export-oriented logistics infrastructure. The additional capacity will optimize transshipment capabilities due to higher operational efficiency, which will ensure the development of the country’s grain complex and increase the competitiveness of Russian grain in world markets.”

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■ Northwest Grains breaks ground on ag transload operation

DILLON, SOUTH CAROLINA, US — Northwest Grains International, LLC, an exporter of containerized agricultural products in the United States, is breaking ground on a \$2.5 million agricultural transload operation in Dillon County, South Carolina, US, to serve agricultural producers. The operation will handle containerized soybeans, lumber, logs, peanuts, cotton, cotton seed and yellow peas for export through the Port of Charleston via rail-served Inland Port Dillon.

The Dillon County port is owned by the South Carolina Port Authority (SCPA), and Northwest Grains new transload operation will be located next to Inland Port Dillon. Northwest Grains will load crops into containers at its site, and the containers will then be loaded onto CSX trains at Inland Port Dillon to be delivered to the Port of Charleston for export to overseas markets, the SCPA said.

“We are excited to welcome Northwest Grains International, LLC to South Carolina Ports,” said Jim Newsome, president and chief executive officer of the SCPA. “The company’s decision to invest in Dillon County and use Inland

Port Dillon will further support farmers and agricultural business across the Carolinas. We are proud to play a role in supporting agriculture export growth in the Southeast.”

The new transload operation is expected to open in late October in time for soybean season and will create 5 to

10 jobs. The SCPA expects the facility to handle 1,000 containers per year.

“We found a great partner in South Carolina Ports, which shares in our commitment of providing excellent service and reliable shipping,” said Gary Mao, the founder and president of Northwest Grains International, LLC.

■ Greenfield Global inks corn supply pact with CFS

WINNEBAGO, MINNESOTA, US — Greenfield Global Inc., a producer of renewable energy solutions and provider of high-purity specialty alcohols and solvents, has reached an agreement with Central Farm Service (CFS) for the supply of corn to its newly acquired ethanol plant in Winnebago. The partnership also includes a takeoff agreement of the dried distillers grain products (DDGS) by CFS.

Greenfield acquired the Winnebago plant near the end of 2020 and expects to begin producing renewable ethanol at the plant as early as this fall.

The Winnebago plant has a capacity of 48 million gallons of ethanol per year, which is mainly produced for the purpose of low-carbon fuels, according to Greenfield.



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■ Agtegra to produce turkey feed

ABERDEEN, SOUTH DAKOTA, US — Agtegra Cooperative is adding a new feed product to its portfolio. The Herreid feed mill in South Dakota, US, will produce around 5,000 tons of turkey feed annually.

The facility implemented a few changes to accommodate mixing another species' feed in the mill. In addition to more load-out spouts for the dedicated turkey feed bins, a hand-add



scale and other small measuring instruments were installed to track feed ingredients. A larger addition included a system used in applying Sal-Curb, a formaldehyde product used to reduce bacteria when mixing turkey feed ingredients. Other small upgrades to the mill were made to comply with turkey feed milling regulations.

The addition to Herreid's milling capabilities will nearly double the total feed volume produced per year at the location.

Agtegra expects the expansion to impact more than just its feed business.

"Livestock development creates more local demand for corn and soybean meal," said Scott Kilber, feed division manager of Agtegra. "It also creates jobs and opportunities for our kids to stay here in South Dakota."

"We continue to look for opportunities to support livestock development in our area because of the impact the agriculture industry has on every aspect of our lives. Every mouth we can feed here has a ripple effect on overall growth for our cooperative, community, county and state."

■ Bartlett Milling to expand, upgrade operations in North Carolina

JOHNSTON COUNTY, NORTH CAROLINA, US — Bartlett Milling plans to invest as much as \$28 million to expand and upgrade its mill operations in Wilson's Mills, North Carolina. Bartlett Milling in Johnston County, which includes the town of Wilson's Mills, produces a full line of commercial patent flours for bakeries, restaurants and institutional foodservice operations such as schools and hospitals. Bartlett acquired the Wilson's Mills facility, which was constructed in 2000, from Midstate Mills, Inc. in 2007.

"We are excited about expanding our operations to better serve our customers in North and South Carolina," said Bob Knief, president of Bartlett, a Kansas City, Missouri,

US-based company that is part of Savage Enterprises. "This new production line will primarily process soft wheat, creating increased opportunities for area farmers to market their soft wheat crop."

Bartlett initially plans to hire at least five new employees.

"Congratulations to this growing global company on the success that has led to this major expansion," said Chad M. Stewart, chairman of the Johnston County board of commissioners. "Agribusiness and food processing have long been a central part of Johnston County's economy, and today's announcement by Bartlett Milling is strong evidence that the sector is alive and well here."

■ ADM partners in sustainable innovation alliance

CHICAGO, ILLINOIS, US — ADM Ventures, the corporate venture capital arm of ADM, is joining forces with the Genesis Consortium.

Founded by Silicon Valley-based investors SOSV and Mayfield Fund, Genesis is a global alliance of venture capital firms and corporations dedicated to supporting startups that leverage biology to promote human and planetary health. SOSV is the parent company of IndieBio, a startup accelerator and early-stage investor for biology-centered startups.

The new partnership will accelerate the commercial launch and scale-up of startups solving health and environmental problems, according to ADM.

"We view the Genesis Consortium as a conduit through which ADM can collaborate with emerging players in the industry to bring to market new, natural products that simultaneously meet consumer demands and solve pressing global challenges," said Ian Pinner, chief strategy and innovation

officer at ADM. "Innovative startups are unlocking scientific advancements by leveraging biology and fermentation to produce nutritional, health and wellness, and bio-material solutions sustainably and cost-competitively. ADM is focused on leveraging its deep expertise in fermentation to accelerate the commercialization of these game-changing innovations."

ADM works with innovators advancing sustainability across its global business and recently announced partnerships with startup companies, including Air Protein, a maker of air-based meat, Spiber, a maker of lab-grown spider silk, and NET Power, a clean energy company.

Through ADM Ventures, it invests in startups with disruptive technologies across three key areas: human nutrition, animal nutrition and sustainability. It also seeks startups that utilize ADM's assets and feedstock to produce sustainable materials, in addition to technologies that enhance the effectiveness of ADM's operations.

■ New port officially opens on Missouri River

FORT DODGE, IOWA, US — NEW Cooperative on June 2 officially opened the Port of Blencoe, located on the Missouri River between Council Bluffs, Iowa, US, and Sioux City, Iowa, US.

The port, which can accommodate 240,000 tonnes of soybeans, corn, dried

distillers grains and dry fertilizers annually, is the farthest stop north on the Missouri River.

Ground was broken for the project in September 2020, and barges began transporting grain and fertilizer to and from the port in early 2021.

According to Sosland Publishing's

2021 Grain & Milling Annual, NEW Cooperative has a total of 35 grain storage facilities with a total licensed grain storage capacity of 118 million bushels. It also operates six US feed mills.

NEW Cooperative is a farmer-owned grain, agronomy, energy and feed cooperative that was founded in 1973.

■ KSU names new bakery science assistant professor

MANHATTAN, KANSAS, US — Elisa Karkle, PhD, has been named assistant professor of bakery science and management in the Grain Science and Industry Department at Kansas State University.

In her new role, Karkle will teach undergraduate courses such as Baking Science II, Bakery Plant Layout, and will be responsible for the development of new courses. In addition to her classroom responsibilities, she will focus on recruiting new students to KSU's bakery science programs and growing participation in the Bakery Science Club.

Karkle has worked with KSU for several years on projects for the International Grains Program and has served as an instructor for AIB International. She received a bachelor's degree in human nutrition, a master's degree in food science, and a doctorate in grain science, all from KSU.

After graduation, Karkle focused on improving the delivery of school-based nutrition and nutrition curriculum in Brazilian grade schools. Currently she supports the bakery ingredient industry through development of ingredients to improve the shelf life and nutritional impact of sourdough bread.

Karkle said she is excited to get students involved with undergraduate and graduate research projects and that she looks forward to optimizing lab space for bakery product research and development.

"I'm excited about serving the next generation of baking professionals and establishing research collaborations with industry," she said. "The Department of Grain Science is a great place to make a meaningful impact."

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WHEAT

Prices soften as crop outlook improves

by Chris Lyddon

With harvest approaching in Northern Hemisphere growing regions and crop estimates being revised up as weather remains largely favorable, wheat has become cheaper recently.

The US Department of Agriculture (USDA) said in its June 10 Grain: World Markets and Trade report that “wheat prices fell across most major exporting countries since last month’s WASDE (the USDA’s monthly World Agricultural Supply and Demand Estimates report) with improving winter wheat conditions in several key producing regions.”

Russian export quotes have declined as the winter wheat harvest nears and remained flat since the new floating taxes became effective June 2, the USDA said, noting that its quotes are currently the most competitive.

“Argentine quotes have also declined slightly as planting is underway,” the report said. “US quotes declined after the last WASDE but have rebounded partially over the past week with some rains at harvest time.”

The USDA also reported a slight decline in Australian prices, limited because of robust offshore demand. There was a decline described as marginal in EU prices with old crop supplies tight, but favorable prospects for the new crop.

“In contrast, quotes from Canada have risen sharply over the past couple of weeks with a smaller expected crop,” the USDA said.

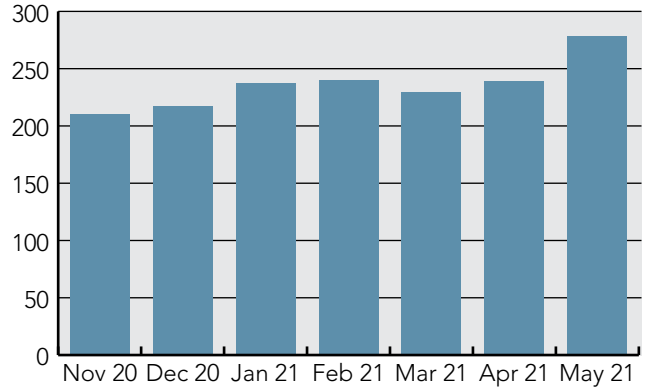
The USDA issued an updated WASDE report on June 11 that put the US 2021-22 wheat crop at 51.66 million tonnes, up from its May forecast of 50.95 million, with “increased hard red winter and soft red winter production more than offsetting lower white winter production.”

“The global wheat outlook for 2021-22 is for larger supplies, higher consumption, increased trade, and higher stocks,” the USDA said. “Supplies are projected to increase 4.3 million tonnes to 1.087.9 billion, mainly on higher production for the EU, Russia, and Ukraine as world production is projected at a record 794.4 million.”

The USDA’s previous forecast for the world’s wheat crop was 788.98 million tonnes.

“The EU is raised 3.5 million tonnes to 137.5 million on recent beneficial precipitation across Northern and Central Europe,” the USDA said. “The largest increases are for Germany, France and Romania.”

Monthly wheat price
(in US dollars per tonne)



(US), No. 1, hard red winter, ordinary protein, export price delivered at the US Gulf port for prompt or 30 days shipment.

The USDA also increased its forecast for Russia’s wheat production by 1 million tonnes to a record 86 million.

“Winter wheat production is increased on a higher yield with widespread spring rainfall across Western Russia, while spring wheat is raised on higher area, based on Agricultural Ministry estimates,” the USDA said.

“The USDA added 500,000 tonnes to its forecast for Ukraine, bringing it to 29.5 million tonnes, another record, because of “favorable weather conditions.”

The USDA also is expecting record wheat consumption, having increased its forecast by 2.4 million tonnes to a record 791.1 million, mainly on higher feed and residual use by the EU and Russia, because of increased supplies. Trade in 2021-22 is also forecast at a record 203.2 million tonnes, a revision upwards of 800,000 tonnes in increased exports by Ukraine and India.

In its Grain Market Report at the end of May, the International Grains Council (IGC) said that “with day-to-day movements often linked to changes in other commodities, especially corn, world wheat export prices posted further gains in the first part of May, but retreated later in the month,” reporting a 5% fall since its previous report, a month earlier.

“Activity was somewhat volatile, often responding to changeable weather forecasts,” the IGC said. “Worries about dryness for crops in the US, Europe and the Black Sea region provided initial support, but concerns were partly allayed by widespread rains as the month progressed.”



Chris Lyddon is *World Grain's* European correspondent. He may be contacted at: chris.lyddon@ntlworld.com.

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FOCUS ON BRAZIL

Country is world-leading soybean producer but is dependent on wheat imports

by Chris Lyddon

Brazil is one of the world's largest producers of agricultural and food products, leading the world in oilseeds production, for example. However, its low wheat production makes its flour milling industry dependent on imports, a situation the country's millers want to see change.

The International Grains Council (IGC), in its May 27 Grain Market Report, forecast total Brazilian grains production in 2021-22 at 128.4 million tonnes, up from an estimate of 128.3 million the previous month and from the previous year's total crop of 108.9 million tonnes.

It put the country's wheat crop at 6.9 million tonnes, 200,000 above the previous forecast and up from 6.2 million in 2020-21. The forecast for Brazil's corn crop is an unrevised 117.4 million tonnes, up from 98.5 million the year before. Sorghum production is forecast at 2.6 million tonnes, revised up from 2.5 million, but down from 2.8 million the previous year.

Brazil's total 2021-22 grains exports are now forecast at 32.8 million tonnes, revised down from the previous estimate of 37.7 million, and down from 36.6 million the previous year. Its grain imports are put at an unrevised 8.6 million tonnes, down from 9.9 million in 2020-21. Of that, wheat imports are forecast at 6.7 million tonnes, which is unrevised from the IGC's previous estimate and unchanged from the previous year.

Total corn exports are put at 32.1 million tonnes, down from a previous estimate of 37 million tonnes. Corn exports in 2020-21 were 35.4 million tonnes.

Brazil is forecast to import 1.4 million tonnes of corn, an unrevised figure that compared with the previous year's 2.6 million. The IGC said Brazil also will import 500,000 tonnes, an unrevised forecast, down from 600,000 tonnes the previous year.

Brazil is the biggest soybean producer in the world with a crop



KEY FACTS

Capital: Brasilia

Population: 213,445,417 (July 2021 est.)

Religions: Roman Catholic 64.6%, other Catholic 0.4%, Protestant 22.2% (includes Adventist 6.5%, Assembly of God 2.0%, Christian Congregation of Brazil 1.2%, Universal Kingdom of God 1.0%, other Protestant 11.5%), other Christian 0.7%, Spiritist 2.2%, other 1.4%, none 8%, unspecified 0.4% (2010 est.).

Location: Eastern South America, bordering the Atlantic Ocean.

Government: Federal presidential republic. Chief of state and head of government: President Jair Bolsonaro (since Jan. 1, 2019).

Economy: Brazil is the eighth-largest economy in the world but is recovering from a recession in 2015 and 2016 that ranks as the worst in the country's history. In 2017, Brazil's GDP grew 1%, inflation fell to historic lows of 2.9%, and the Central Bank lowered benchmark interest rates from 13.75% in 2016 to 7%. The economy has been negatively affected by multiple corruption scandals involving private companies and government officials, including the impeachment and conviction of Former President Dilma Rousseff in August 2016. Sanctions against the firms involved — some of the largest in Brazil — have limited their business opportunities, producing a ripple effect on associated businesses and contractors but creating opportunities for foreign companies to step into what had been a closed market. The succeeding Temer administration has implemented a series of fiscal and structural reforms to restore credibility to government finances. Congress approved legislation in December 2016 to cap public spending. Government spending growth had pushed public debt to 73.7% of GDP at the end of 2017, up from over 50% in 2012. The government also boosted infrastructure projects, such as oil and natural gas auctions, in part to raise revenues. Other economic reforms, proposed in 2016, aim to reduce barriers to foreign investment, and to improve labor conditions. Policies to strengthen Brazil's workforce and industrial sector, such as local content requirements, have boosted employment, but at the expense of investment. Brazil is a member of the Common Market of the South (Mercosur), a trade bloc that includes Argentina, Paraguay and Uruguay. After the Asian and Russian financial crises, Mercosur adopted a protectionist stance to guard against exposure to volatile foreign markets and it currently is negotiating Free Trade Agreements with the European Union and Canada.

GDP per capita: \$14,652 (2019 est.); inflation: 3.7% (2019 est.); unemployment: 11.93% (2019 est.).

Currency: reals (BRL): 5.04 reals equal 1 US dollar (June 21, 2021).

Exports: \$291.452 billion (2019 est.): soybeans, crude petroleum, iron, corn, wood pulp products (2019).

Imports: \$271.257 billion (2019 est.): refined petroleum, vehicle parts, crude petroleum, integrated circuits, pesticides (2019).

Agriculture: 6.6% (2017 est.) of GDP and 9.4% of the labor force.

Internet: Code: .br; 140,908,998 users.

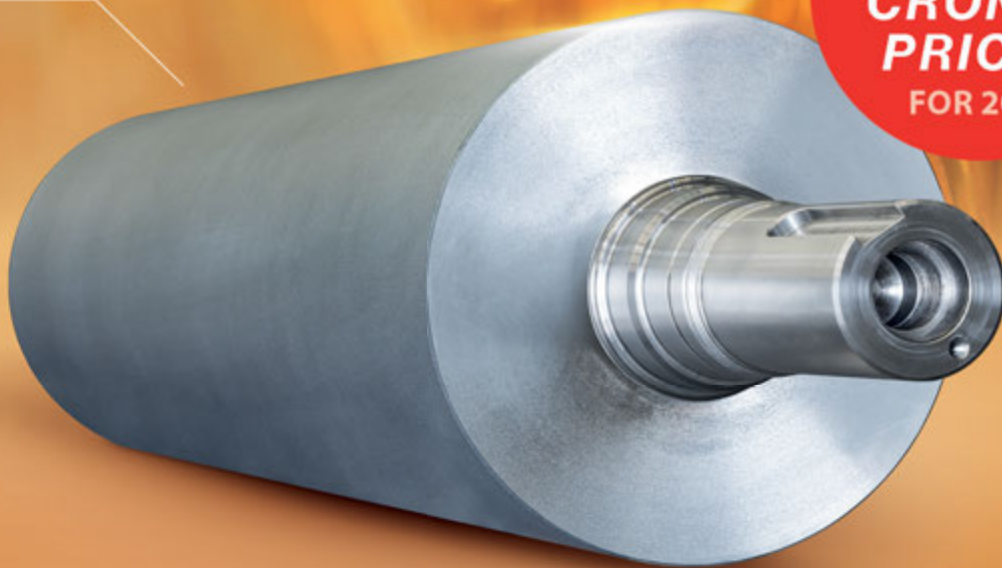
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forecast by the IGC at 140.5 million tonnes, compared with its previous figure of 139 million and the previous year's 134.5 million. It is also the world's biggest soybean exporter, with exports forecast at 91.4 million tonnes in 2021-22, up from a previous forecast of 87.4 million tonnes and from the previous year's 86.1 million. It will import

400,000 tonnes, a figure revised up by the IGC from 100,000. The previous year's soybean imports were 400,000 tonnes.

Strong demand for corn

In an annual report on the grains sector published on April 1, 2020, the USDA attaché in Brazil forecast that corn pric-

es would remain high at least until the end of 2021, on the basis of strong external and internal demand.

"As has been the case this year, Brazilian producers should be incentivized in 2021-22 to expand corn planting, especially in the Center-West," the report said. "Factoring in trend yields, Brazil could easily smash its corn production record."

Corn is grown in every state of Brazil and given the large size of the country and its geographic diversity, corn is also planted and harvested during several different periods, the attaché explained.

"The corn crop in southern Brazil is typically planted between September and December and then harvested between January and May," it said. "This crop is now considered the first of three annual corn crops, as it is the first to be harvested during the market year. It is also known as "full season" or summer corn, given that it is normally the only crop planted in a particular field during the year and also is largely cultivated during the Southern Hemisphere's summer season."

First-crop corn accounts for 25% of Brazil's total production, it said.

"As agricultural production expanded into the Center-West region starting in the 1970s and 1980s, Brazilian farmers began planting two crops per year on the same land, as the warm growing climate and length of the rainy season would usually support cultivation of soybeans during the summer followed by corn on the same area in the Southern Hemisphere autumn and winter," the attaché said. "This corn crop is known as second-crop or winter corn, but is also referred to as the 'safrinha,' the Portuguese term meaning 'little harvest,' because it was originally the smaller of Brazil's two corn crops. Today, safrinha corn makes up almost three-fourths of total corn production in Brazil. Safrinha corn is typically sown between January and March and harvested between June and September."

Corn ethanol industry growing

In an October 2020 report, the attaché noted a boom in corn-based ethanol, in a country in which biofuel production traditionally has focused on using sugarcane.

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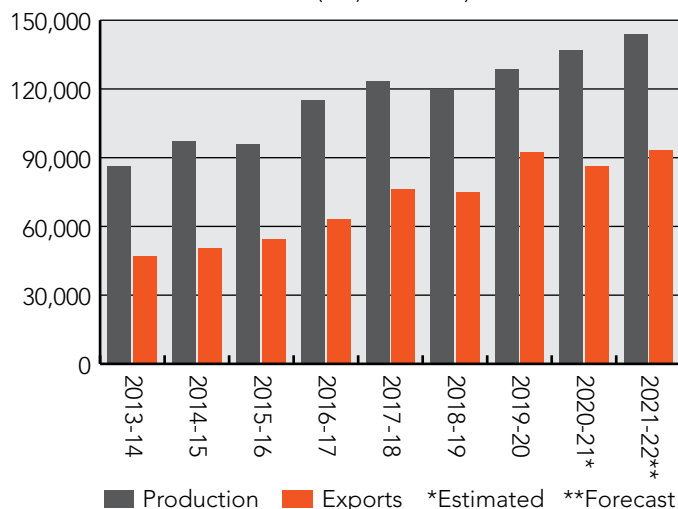
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Brazil wheat production, imports
(in 1,000 tonnes)



Brazil soybean production, exports
(in 1,000 tonnes)



“Plentiful, and generally cheap, corn supplies in Brazil’s Center-West region have enticed investment in the corn ethanol sector over the last few years,” the report said. “The Brazilian Corn Ethanol Union (UNEM) estimates that the sector will produce about 2.5 billion liters of corn-based ethanol in market year 2020-21.”

There are 16 corn ethanol plants in the country, four of which are corn only, with the rest equipped to use corn or cane. According to the attaché, industry sources report at least seven other corn-based ethanol plants in the planning, development, or construction stage, which could come online in the next two years.

“If all the ongoing projects are built as planned, Brazil’s corn ethanol production could top 5.5 billion liters per year, consuming more than 13 million tonnes of corn annually,” the report said.

In the annual report on the grains sector, the attaché — predicting a record 7.05-million-tonne wheat crop in 2021-22 — said that “historically high domestic wheat prices are pushing farmers to dramatically expand wheat cultivation.”

“Brazilian wheat production is concentrated in the south of the country, especially in the states of Parana and Rio Grande do Sul,” the report said. “Together, those two states account for roughly 85% of total Brazilian production. Even with a bumper crop in 2021-22, Brazil will remain one of the world’s largest importers of wheat. The crop is one of the few commodities for which the country is not self-sufficient.”

Millers want more domestic wheat

The report notes that the Brazilian Wheat Millers’ Association (Abitrigo) is continuing to push the Brazilian government to adopt the group’s “National Wheat Policy,” which, among other things, aims to dramatically increase wheat cultivation in Brazil.

“According to Abitrigo, failing to achieve self-sufficiency

in wheat production leaves Brazil vulnerable to the whims of exporting countries that could place limitations on foreign sales of wheat, as has been the case with Russia this year,” the report said. “There are also persistent rumors that Brazil’s largest wheat supplier, Argentina, could do something similar, which could jeopardize sales channels for Brazilian millers.”

Abitrigo puts the number of flour mills in operation in Brazil in February 2019 at 165. It estimates the total amount of wheat milled in 2020 at 12.7 million tonnes.

“Per-capita consumption of wheat in Brazil has slumped in recent years but has been offset by population growth, leaving the overall wheat consumption level relatively static,” the attaché said.

Brazil is a key global oilseed producer, accounting for almost a quarter of total global supply, the attaché said in a separate report on the oilseeds sector, published on April 1.

“Globally, Brazil is the leading producer and exporter of soybeans, accounting for more than one-third of the world’s soybean production,” the attaché said.

Strong demand, high prices, and a favorable exchange rate have contributed to a continuing expansion in area and production, with the attaché forecasting an area of 40 million hectares in 2021-22, up from 38.5 million the year before.

Brazil has adopted biotech crops on a large scale, becoming the world’s second largest producer with 104 events approved, according to a December 2020 attaché report.

“The total area planted to GE crops reached over 53 million hectares during the recently completed crop year of 2019-20,” the attaché said. WG

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FRENCH ROLLS POPULAR IN BRAZIL

Pão francês are sold in every Brazilian bakery

by Luciano Pereira and Roman Gradert

Brazilian cuisine is a reflection of the country's multicultural population. Depending on the region, eating habits have been shaped by indigenous, European, African or Creole influences. But different as culinary tastes may be among the 212 million inhabitants, there is surprising agreement when it comes to a particular bakery product: Brazilians love pão francês — a light-colored, yeast-raised wheat roll characterized by a tender, flaky crust and a fluffy crumb.

These cylindrical rolls are a central feature of meals, especially breakfast. Most Brazilians start the day with cafézino, a strong, sweet espresso, and a crispy pão francês that they spread just with butter or margarine. Those who prefer a more substantial meal fry the halved rolls in a pan with butter to make “pão na chapa.”

For midday lunch, the roll is served with soups, stews or salads. And in the evening, with a circle of friends in a restaurant, the Brazilians like to dip into the breadbasket and soak up the sauces from the lavish meat and fish dishes with pão francês.

Most important sales driver

Because freshness has top priority in the purchase of rolls, private households and restaurant owners mostly buy what they need from a total of some 64,000 small- and medium-sized artisan bakeries that are a familiar part of the street scene in Brazil. For these businesses, pão francês is generally the

main sales driver and the most important item in their product range.

Customers' expectations in respect of their favorite rolls are clearly defined: the pão francês must have a light, fluffy crumb, a tender, flaky, wafer-thin crust with a pale brown color, a mild taste and a wide split. The weight is between 50 and 60 grams.

Since the cylindrical rolls are baked close together in the oven, their ends meet as the dough rises. After cooling, these “snakes” of bread are broken apart at the joints to reveal the white, fine-textured crumb. This specific appearance is another feature consumers expect.

Quality reference for pão francês

Many bakeries advertise their French bread as the hallmark of their trade. Nevertheless, problems with quality and standardization often occur, sometimes because of a shortage of qualified workers.

To offer the industry practical help in improving its production methods, the Brazilian standardization committee ABNT (Associação Brasileira de Normas Técnicas) has developed recommendations for the production of pão francês. Since 2013, the technical stan-

The following is a typical recipe for Pão francês:

Ingredients	Percentage	Parts
Wheat flour	61	100
Water, ca.	36.6	60
Salt	1.1	1.8
Yeast	0.61	1
Improver	0.73	1.2
Total	100	164

Pão francês is light-colored yeast-raised wheat roll characterized by a tender, flaky crust and a fluffy crumb.



Photo courtesy of Mühlenchemie

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dard “ABNT NBR 16170” has specified criteria for evaluating and classifying French bread. Shape, size, properties of the crust, color, crumb structure, shred, odor, flavor... every detail of a perfect pão francês is described precisely in these guidelines. Although the standard is not binding, the initiators hope it will help to ensure that “French rolls” are of uniform, defined quality in all corners of the country.

Polysorbate as an emulsifier

If the rolls are to be light and fluffy inside and have a thin, crisp crust, the flour used must guarantee suitable baking performance. To reconcile quality with economy in the grinding process, the mills generally combine cheaper domestic wheat lots with higher-performance imported wheat. In the past it was the Mercosur countries Argentina, Uruguay and Paraguay that played the

most important role, but countries like Russia, Ukraine and other Black Sea countries also have become established trading partners.

To standardize flours made up of very different wheat varieties and regions of origin, it is established practice in Brazil to treat the flour with enzymes and additives. The products used include oxidizing agents, amylases, xylanases, hemicellulases and emulsifying additives like DATEM and SSL. A peculiarity of Brazilian food law is the approval of polysorbate, a high-performance emulsifier that has a particularly strong effect on the gas retention capacity and stability of a dough. The additive azodicarbonamide (ADA) is also a much-used improver in Brazil. However, in comparison with other South American countries that permit a dosage of up to 45 ppm, the maximum quantity allowed in Brazil is lower, at 40 ppm.

Ensuring firm doughs

Besides a suitable flour, the making-up process for the dough is an important factor for the quality of pão francês. Even at the smallest artisan bakeries it is usual to have a special mechanical roll shaper

to replace laborious manual rounding and molding.

After mixing and kneading, the dough is left to ferment only for a short time before processing continues mechanically. On a feeder conveyor belt, the dough pieces are pressed automatically and pass through various roller systems with decreasing gap widths. This results in thin, portioned sheets of dough that are rolled up tightly by several deflectors.

The bakers only have to intervene to give the rolled dough portions a finishing touch to their appearance. The loaded proofing trays are then placed in the proofing chamber at a temperature of about 30°C and a relative humidity of 80%.

The “French mini-loaves” are baked for about 20 minutes at 200°C to 220°C after being scored lengthwise to create the split.

Increasing expectations

For many Brazilian consumers, the price and freshness of the rolls are still the most important criteria for buying. But generally speaking, the bakeries are noticing increasing expectations on the part of their customers. Fewer consumers are willing to tolerate fluctuations in appearance or taste. On the contrary, there is a demand for high and consistent product quality. Since it is sometimes only necessary to make small adjustments to the recipe or production method to enhance the appearance and sensory properties of pão francês, here is an overview of the most common mistakes made in production, with suggestions for avoiding them:

Problem: Low bread volume.

Possible causes: Fermentation time too short; too little yeast; unsuitable flour with too little enzymatic activity.

Solutions: Prolong the fermentation time of the dough; use more yeast; use suitable flour; increase or adjust flour treatment (Alphamalt VC 5000, Alphamalt HCC 2).

Problem: Inadequate shred/bloom.

Possible causes: Fermentation time too long; dough temperature too high; flour too weak; too little enzyme activity.

Solutions: Shorten the fermentation time; use cold water; use more steam in the oven; increase humidity in the fermentation chamber; use more oxidizing agent (OXEM, Elco P-100); add more enzyme improvers (Alphamalt EFX Mega, Alphamalt H 19480).

Problem: Dark crust, soft crumb.

Possible causes: Enzymatic activity too high; oven too hot; baking time too long.

Solutions: Use wheat flour with lower enzymatic activity; add less alpha-amylase (Alphamalt VC 5000) to

A Brazilian product with a hint of France

No Brazilian consumer expects a traditional French baguette when buying pão francês. The misleading name, which means “French bread,” is thought to have originated in the early 20th century, when the upper classes of Brazil took pleasure in visiting far-off destinations in Europe, especially France. Upon their return, the travelers gave their bakers rapturous descriptions of the delicious bread they had enjoyed in Paris. The typical loaves in France at that time were short and cylindrical, with a firm crumb and a golden-brown crust. They were forerunners of the baguette, which did not acquire its characteristic elongated shape until later. Following these descriptions, Brazilian bakers tried to imitate this European speciality. What emerged was a new bakery product in its own right; it was destined to become an unprecedented bestseller, known as “pão de sal” (salt bread), “cacetinho” (stick bread), “pão careca” (bare bread) or “filão” (snake bread), according to the region.

the flour; set the oven to a lower temperature; shorten the baking time.

Problem: Holes in the crumb.

Possible causes: Flour too weak; doughs too warm; fermentation chamber too warm; too much yeast; mixing and resting times too long.

Solutions: Use stronger flour; use cold water; set a lower temperature in the fermentation chamber; use less yeast, shorten processing times; adjust flour treatment (use Mulgaprime 10, Alphamalt Gloxy TGO, Alphamalt EFX Mega).

Problem: Not enough crispiness.

Possible causes: Dough too firm; flour too weak; baking temperature too low; doughs too dry and bucky; too little enzymatic activity.

Solutions: Use stronger flour; set the oven to a higher temperature; increase the amount of liquid in the recipe; adjust the enzymatic activity (Increase the flour treatment (Alphamalt GA 23750, Deltamalt FN, Mulgaprime 10).

Problem: Pale, white crust.

Possible causes: Fermentation chamber too dry; fermentation time too long; oven temperature too low; baking time too short; too little enzymatic activity.

Solutions: Increase humidity in the fermentation chamber; reduce the fermentation time; set the oven to a higher temperature; prolong the baking time; add more alpha-amylase to the flour (Alphamalt VC 5000, Alphamalt GA 23750, Deltamalt FN).

Problem: Blistered crust.

Possible causes: Flour too weak; incorrect machine setting; fermentation time too long; doughs too soft; fermentation chamber too warm.

Solutions: Use stronger flour; increase the pressure of the dough molding machine; shorten the fermentation time; reduce the amount of liquid in the recipe; reduce the temperature in the fermentation chamber. **WG**

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GRAIN SECTOR REBOUNDED FROM PANDEMIC

IGC Conference speakers say the industry
functioned well through difficult circumstances

by Chris Lyddon

With the COVID-19 pandemic finally starting to ebb, speakers at this year's International Grains Council (IGC) Conference, held virtually June 8-9 as a precautionary measure, said the global grains and oilseeds supply chain has handled COVID-19 well, despite wrestling with labor supply problems, closed borders, high shipping costs and wild swings in demand, notably away from biodiesel as vehicle use shrank dramatically with people around the world staying home.

The feed sector had problems keeping its workforce safe and got a reminder that buffer stocks are necessary to cover shocks to the system, while oilseeds producers and traders are looking forward to renewed biofuel demand. For grains, favorable weather has brightened the production outlook.

In a group discussion on feed demand, Justin Sherrard, global strategist, animal protein at Rabobank, highlighted the issue of labor availability in the wake of the pandemic.

"The animal protein sector, particularly 12 months ago, had enormous problems with maintaining work-

forces in a safe environment within their plants," he said. "In some cases, with beef for example, we are still working through the back end of the supply backlog that was established by the slowdown in plant operations.

"There have also been some disruptions associated with COVID-19 outbreaks in plants that have influenced or impacted or restricted trade. Certain plants have been suspended from exporting to certain countries because of COVID outbreaks, for example.

"Most of that is behind us but the broader issue of labor availability remains. It remains quite challenging in many parts of the world to find the workers, to get the workers into the plants, particularly some of the more labor-intensive deboning activities."

Sherrard also pointed to a growing challenge regarding freight costs.

"The cost of shipping from Europe to Asia, North America to Asia, South America to Asia – all of these costs have gone up during the last nine months or so," he said. "While we may be saying that those costs have peaked, they are still very high costs

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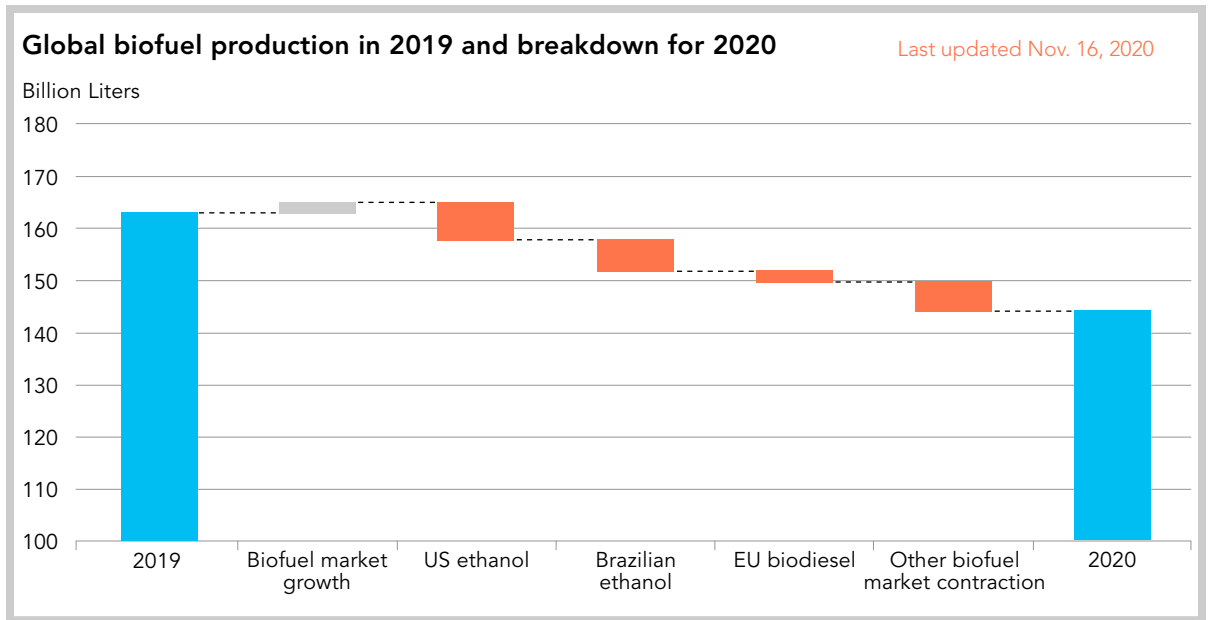
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when you have to also take into account that feed is also very expensive at the moment.”

Zoltán Pulay, vice president of the European Feed Manufacturers’ Federation (FEFAC), said that the first wave of the pandemic “was really scary.”

“We really just faced a situation where we really didn’t know what to do,” he said. “That happened in such a short period of time, but I think both our federation and our European organizations have been very successful in negotiating originally with the governments, also sending out messages very quickly to the (European) Commission.”

An early success was in getting the European Commission and the EU’s Member States to set up what were called “green lanes” to enable the agrifood sector’s vehicles to move between European countries.

“That was extremely important,” he said. “Feed ingredients and also feeds were not able to move over the borders. That would have been a very serious problem in the food supply.”

Europe, in his view, handled the first wave well, but then there was a second wave that brought with it shipping delays, notably from Asia.

“Goods could not move from central Asia to the ports, and then all of a sudden there was a big panic purchase, especially from the pre-mix producers who are buying all their ingredients, or the majority of their ingredients, from Asia. That led to a very significant price increase. Then logistics calmed down a bit and the prices came down again, and all of a sudden we had the third wave. We

are still living in very severe conditions of shipping costs and the lack of containers.”

FOB Asian prices for ingredients are coming down, but freight costs mean European buyers are paying more.

“Everybody had to realize that a safety stock is a must,” he said. “That is a burden for the European feed industry even today.”

Countries seek self-sufficiency

Justin Sherrard noted a broader political dynamic stemming from COVID-19 is some countries accelerating existing policies around self-sufficiency.

“We see that in parts of Asia, and we see that in parts of the Middle East as well where there has long been interest in improving self-sufficiency,” Sherrard said. “The most obvious example in recent times has been a move by Saudi Arabia to block imports of chicken from Brazil, which I think is all about improving self-sufficiency within Saudi Arabia. We see a little bit of this in China as well. The current five-year plan talks about a move toward self-sufficiency.”

In a panel debate on vegetable oil markets, Gustavo Idigoras, president of the Argentine Grains Exporters and Oilseed Industry Trade Association (CIARA-CEC), said: “We are watching an incredible increase in prices for vegetable oils in the last year, particularly in these last months.”

He highlighted the growth of biodiesel in the United States, “with the adoption of the renewable energy policy — particularly the introduction of a new technology that is the HVO (Hydrotreated Vegetable Oil) and particularly the use of the veg-



Pulay

etable oils as a raw material for such production.

“It is clear that the level of participation in the international market from the US is quite different from before. So one of the main drivers that is pushing this particular tension between offer and demand is focused particularly on the US renewable policy.”

In contrast, Argentina, with the government likely to trigger a reduction in the usage of vegetable oil as fuel, would be able to export more. Brazil looks set to maintain its biodiesel mandate.

Jakob Dehoust, senior market analyst at Archer Daniels Midland Co. (ADM), discussed the rapeseed market.

“Over the last season, after consecutive smaller rapeseed crops in the major exporting regions, we have seen a huge reduction to minimum pipeline requirement stocks in both Canada and also the EU,” he said. “It started a few years ago in the EU and this year with 6 million tonnes of EU imports in total (with) quite a large share of more than 2 million tonnes from Canada. Canada’s stocks are getting excitingly tight.”

The EU’s rapeseed oil and rapeseed stocks had become tighter despite the effects of COVID-19.

“We lost biodiesel demand of around half a million

Everybody had to realize that a safety stock is a must. That is a burden for the European feed industry even today.

Zoltán Pulay, vice president, FEAC

tonnes, so a million tonnes seed equivalent, because of less mobility, transport and public transport,” he said. “We all still sit at home. Most of the offices in Germany, for example, are still empty.”

Stronger demand was expected from the biodiesel sector and prices for the new crop are at a record high, despite the improved outlook for EU production.

European crops bouncing back

In a discussion of the grains and soybean production outlook, Maurits Van den Berg, senior scientist, European Commission Joint Research Centre, Directorate for

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FEATURE: GRAIN SECTOR REBOUNDED FROM PANDEMIC

Sustainable Resources, said that it was still difficult to say if the growing season had gone well.

"Let's start by saying that we had three difficult years behind us," he said. "Anything that is better than that is already positive."

The winter crop season started well, without too much rain.

"Crop establishment was fairly good, especially in December in most European countries," he said. "But then we also had some very severe cold spells, really record cold temperatures, which has been quite rare during recent years because we were always talking about record hot temperatures.

"Even in April, we had a very cold period. April is, of course, the period when winter wheat grows and the crop stems are forming, and also when the summer crops are sown and germinating, and shoots have their early establishment."

"Currently, depending on where you are, conditions have been more stable. Temperatures, even though in many places are still slightly below average, are now much more favorable for crop growth so we have seen an acceleration of winter crop development and growth.

"We are cautiously positive about the outlook for 2021. That concerns the main European producers but also the neighboring regions like Ukraine and European Russia."

Van den Berg said he is less positive about Turkey.

"Let's put it that way, mainly for the summer crops, because currently a lot of irrigation water has been used for winter crops," he said. "Water reserves are at a very low level."

Huge corn, soybean plantings in the United States

Libin Zhou, lead research analyst, agriculture research at Refinitiv Commodities Content and Research, explained that a large projected area was planted to maize and soybeans in the United States.

"US farmers wanted to take advantage of the high prices," she noted.

There were still some concerns over warm and dry weather in the northern plains and upper Midwest, she said.

"Soil moisture in North Dakota has been low compared to the long-term average as well as in some portions of Iowa, one of the biggest corn and soybean producing states, but so far we still think corn and soybean production should be OK at the moment," she said.

Zhou said the summer weather outlook in the United States did not indicate any significant dry or warm conditions.

WG

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SHIPPING COSTS SOARING

Commodities 'supercycle' driving up raw material prices and ship owner profits

by Mike King

Is the US-China trade war dead? It certainly is for US agricultural exporters, although renewed demand is bringing with it the specter of soaring bulk shipping costs. Indeed, ship owners are enjoying something of a commodities supercycle that is driving up both the prices of raw materials and ship owner profits.

Overall demand for bulk shipping in the first four months of 2021 reached a record 1.69 billion tonnes, up 6.1% compared with the same period last year, according to shipping association Bimco. It is not hard to identify what has been firing demand: commodity prices are approaching, and in some cases exceeding, historical peaks. China's iron ore import price, for example, recently passed \$200 per tonne for the first time, while prices for Australian coal topped over \$100 per tonne earlier this year — still below the peak of \$180 per tonne enjoyed by miners in mid-2008 but more than double the lows of mid-2020. US corn and soybean prices in spring neared the record highs reached during the vicious drought of 2012 that devastated production.

"Demand has been buoyed by government stimulus packages and the continued, albeit unsteady, recovery of the global economy from the worst effects of COVID-19 lockdowns," noted shipping analyst MSI.

The upshot of all this has been far higher rates for shippers and healthy bottom lines for ship owners. Capesize earnings in May were running at a daily average of \$36,536, more than nine times higher than in May 2020. The rest of the market also was delivering strong profits to owners and operators, noted Bimco, with panamax earnings standing at \$24,903 per day and supramaxes \$27,430 per day on May 26.

"Just as freight rates are up for all ship sizes, the appetite for cargo transport has increased across the board," said Peter Sand, chief shipping analyst at Bimco. "Supramaxes are the biggest winners, with demand for these soaring by 10.6% in the first four months of this year, compared with 2020."

Over the same period, capesize demand rose by 6% and panamax demand edged up 1.5%.

Grain trade surging

Grain shipments are more than playing their part in the commodities supercycle with demand for bulk carrier capacity out of the United States and Brazil driving up freight and charter rates in sub-capesize shipping markets.

"A surge in grain trade has been a key reason for the current continuous rally in the dry bulk market, espe-

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cially among the small bulkers,” said Rahul Sharan, lead analyst, Drewry.

All of which is clearly reflected in the IGC Grains and Oilseeds Freight Index, which was pushing 200 at the end of the first week in June compared to just 80 at the same point of 2020. On June 8 this year, the IGC’s sub-indices for the United States, Black Sea, Australia and Brazil were up 115%, 168%, 143% and 140%, respectively, compared to a year before.

The same trends were apparent on the Baltic Exchange’s dry bulk indices. The BDI was just 520 at the start of June 2020; a year later it was 2568. Over the same period the BPI and BHSI rose from 777 and 274 to 2801 and 1339, respectively.

Sharan believes there are two key elements to the grain shipping story. First, an increase in grain tonne-miles this year due to geographical procurement patterns has sucked up sub-capesize capacity.

“There has been more trade on the long hauls, especially from the US Gulf to the Far East and also between South America and Asia,” he told *World Grain*.

Second, a significant increase in congestion at grain ports in South America, particularly in Brazil, added additional gusto to freight rate increases in the initial months of this year.

“On a similar note, port calls and waiting days at the discharge ports in China have increased recently, which is squeezing the supply in the Pacific, restricting any sharp fall in the freight rates,” Sharan said.

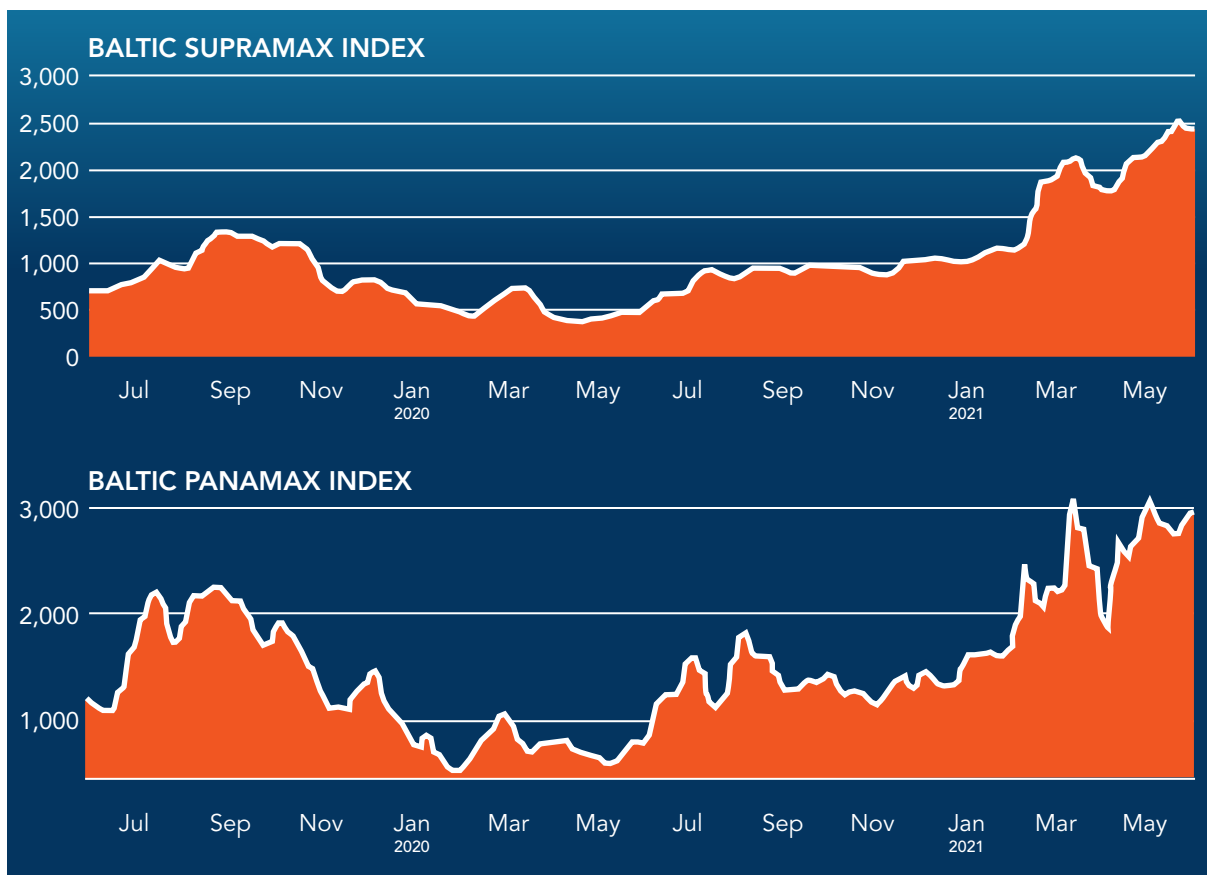
He predicted rates will remain strong through the third quarter.

“Soybean is a winter crop, and it is already winter in Brazil,” he said. “The soybean season will remain active over the next two to three months. However, we are anticipating that the rates should soften in the fourth quarter of this year.”

Sand told *World Grain* there was ample reason to believe that global grains traffic would remain strong into the third quarter.

“Brazilian soybean exports tend to peak in May, though exports remain high in June, before declining throughout the second half of the year,” he said. “So, this will continue to provide some support in the coming weeks but will then start declining, leaving a slight lull in the summer months before the US season then kicks in.”

The United States, of course, is set for a bumper year of agricultural sales, not least because the US-China trade war has lost some of its venom after a trade deal was struck in early 2020. This is expected



Charts courtesy of the Baltic Exchange

to help US farmers to ship a record \$37.2 billion worth of farm goods to China this year, according to the US Department of Agriculture (USDA). Sales of soybeans, corn and wheat and poultry lead the way.

Sand is also bullish on the outlook for US agricultural exports.

“The International Grains Council forecasts that next season the United States will export 56.8 million tonnes of soybeans, an 8.5% drop from the current season when they expect exports to total 62.1 million tonnes,” he said. “By the end of May, 57.5 million tonnes had been exported. Excluding the current season, if exports do reach 56.8 million tonnes next season, that would be the highest export total since the 2017-18 season.”

Demand from China also looks healthy.

“It seems the pig herd has been rebuilt to pre-culling levels,” Sand said. “The culling provided an opportunity for the Chinese to move pig farming away from individual farmers with a couple of pigs in their backyards toward huge pig herds in multi-story buildings. These seem to have a more grains-heavy diet as food waste has been cut out.”

A surge in grain trade has been a key reason for the current continuous rally in the dry bulk market.

Peter Sand, chief shipping analyst, Bimco

However, while demand for shipping out of the United States and South America remains strong, it has been a different picture in the Black Sea.

“Black Sea grains exports have actually fallen in the first five months of this year compared to 2020, down to 24.1 million tonnes from 36.2 million tonnes,” Sand said. “In fact, exports so far this year have been the lowest since the start of 2016.”

Australia, on the other hand, has seen strong growth in its grains exports, up 83.5% in the January-April period this year compared to 2020, with exports totaling 14.9 million tonnes. This is despite an almost 40% fall in grains exports to China, which went from 1.6 million tonnes in January-April 2020 to just under

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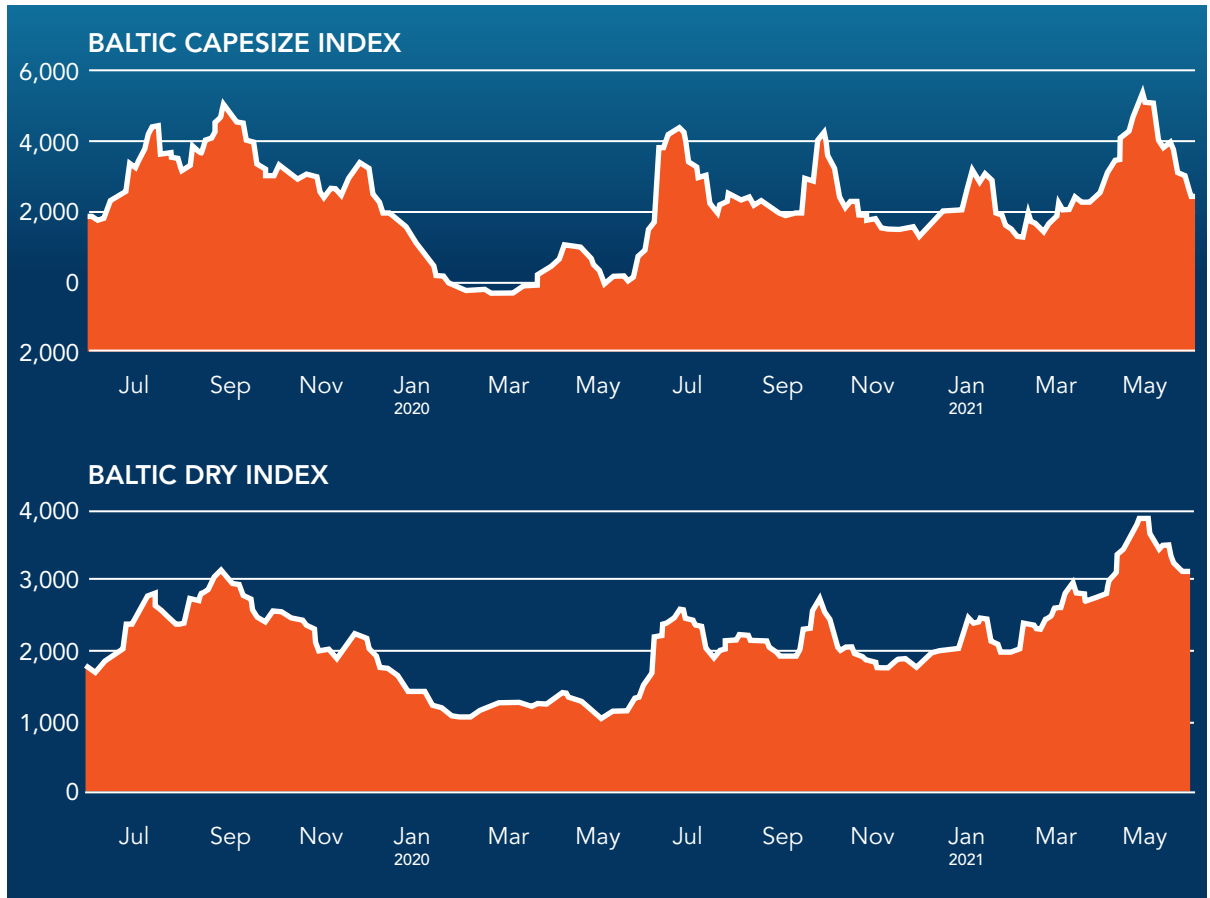
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1 million tonnes in the first four months of this year.

“Compensating for that loss there has been strong growth in exports to Indonesia (up 154.7% to 1.7 million tonnes), and seemingly out of nowhere Australia has gone from not exporting any grains to Saudi Arabia in the first four months of the year since 2018, to suddenly exporting 2 million tonnes, making Saudi Arabia the largest destination for Australian grains so far this year,” Sand said.

There is little on the ship supply side of the equation to suggest freight rates will soften any time soon. While there has been brisk trade in secondhand ships this year as owners and operators rush to cash in on the boom in demand, Bimco noted in May that in the year to date just 92 ships have been ordered, versus 111 in the same period of 2020. Panamax ships were the most popular option with 44 ordered. Of the 30.1 million DWT expected to be delivered this year, just 16 million DWT had arrived in late May, compared to demolitions of 4.2 million DWT.

“This leaves the fleet at 923.9 million DWT, 1.3% up from the start of the year,” Sand said. “In the full year, Bimco expects the fleet to grow by 2.4%, with demolitions likely to reach around 9 million DWT. This will be the slowest fleet growth since 2016.”

For shippers hoping for lower shipping costs, there

are some optimistic signs, however. On top of high demand for bulk carriers and more need for long-haul deliveries, logistics bottlenecks have prevented the optimal deployment of the global fleet in recent months. This is mostly due to a geographically uneven economic recovery, port congestion and COVID-19 outbreaks among crew, which are forcing some vessels to quarantine.

However, as some of those disrupting factors are removed, MSI believes markets could soften.

“There is growing evidence that port congestion is falling, particularly in Brazil and China, after absorbing significant amounts of tonnage during the first quarter of the year,” Sand said. “This would remove an important support for the market. Meanwhile, the direction of trade will closely depend on China’s responses to rising inflation and potential overheating of economic growth.”



Michael King is a multi-award-winning journalist as well as a shipping and logistics consultant. He also supplies an array of corporate services - www.mkingassociates.com. For more information, email mikeking121@gmail.com.

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Region is positioned to take market share from the European Union

by Chris Lyddon

China is going to be the dominant driver in the grains market in the coming years, delegates to the recent Black Sea Grain Conference, organized by Kiev, Ukraine-based sector experts UkrAgroConsult, were told. With the European Union (EU) putting in place policies that are likely to cut grain production, Ukraine, with a sector that is building on long-term investments in farming to increase its output, is well positioned to take advantage.

Taras Kachka, Ukraine's deputy minister of Economic Development, Trade and Agriculture and the country's trade representative, explained during the conference that Ukraine's market and government had found a good balance, with the government not interfering unless necessary.

"The grain market, the grain industry in the Ukraine is a prerequisite of the wealth and development of Ukraine's economy," he said.

Vladislava Magaletska, head of the State Service of Ukraine for Food Safety and Consumer Protection, speaking from Brussels, Belgium, where she was visiting EU institutions with Kachka, described Ukraine as "one of the global leaders for export of grains."

"Analysts predict that within the next 10 years Ukraine will continue its improvement of its position in the global market of grain and will become one of the world's top five exporters of grain, increasing its share by 15%," she said.

She put Ukraine's total grains exports in 2020 at over 54.3 million tonnes, including 17.9 million of wheat, about 4.8 million of barley and 27.3 million of maize. The main export markets were China, the EU, Indonesia, Turkey, Iran, Tunisia, South Korea and Bangladesh.

"There are potential changes," she said, highlighting for potential growth in exports to China.

The COVID-19 pandemic had an adverse effect on exports, she noted.

"However, since the beginning of 2021, with phytosanitary certificates Ukraine has exported 14.4 million tonnes of grain and oilseeds, 3 million tonnes of wheat, about 300,000 tonnes of barley and 11 million tonnes of corn," she said.

Ukraine grain sector transformed

Sergey Feofilov, director general of UkrAgroConsult, explained that Ukraine's grain sector has completed its

The Black Sea Grain Conference was among the first industry events held since the COVID-19 pandemic was declared in March 2020. The conference, which was held May 20-21, 2021, in Kiev, Ukraine, also included a virtual option for delegates.



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transformation from a labor-intensive model to a capital-intensive model.

“A harvest of grain on the level of 65 million or 70 million tonnes, that is the result of substantial investment (from) 2013 to 2017,” he said. “Technologies play a bigger role. They can reduce the influence of such factors as the weather and climate change.”

He was concerned, however, about a sharp fall in investment in 2020, something he described as a global trend, with investment flowing from agriculture into the financial sector, including securities.

“Profitability is greater (and the) risks are very low,” he said.

That left farmers’ incomes as the main source of investment in agriculture. Higher prices meant optimism that farmers would be able to resume investment in new technology.

“We agree with the USDA, the growth of yield and exports will take place both in Ukraine and in Russia,” he said, also noting increased Chinese demand for

maize, despite China’s plans to replace the crop with other feed ingredients.

Feofilov expected Ukrainian grain production to recover, with new records possible.

He also highlighted food price inflation, which he said was a direct consequence of the pandemic.

“Consumers globally have accumulated big volumes of unused money,” he said. “Such deferred consumption is set at \$3 trillion to \$4 trillion. That is globally.”

He noted that in 2020 Brazil’s poultry prices rose by 14%.

“That trend has prevailed in February and the growth was 6%,” he said. “To overcome inflation, we need to achieve a balance between supply and demand.”

Economic crisis impacts commodities

Philippe Chalmin, president of the French commodity research institute Cyclope, told conference delegates that “we are still in the midst of what can be called the worst economic crisis since the 1930s,” with the world running at almost -10% growth.

“The crisis has really profited China,” he said. “China got out from the crisis as early as mid-2020.”

Large-scale spending has helped the United States to recover as well, but Europe was still in crisis. Low interest rates and a world “awash with cash,” meant that many investors were looking for new types of assets and turning to commodities. Prices were running higher, although he hesitated to apply the label “super cycle.”

“You can’t say that there is a real super cycle, but for many, many commodities we are with prices that are almost at record-high levels,” Chalmin said.

He gave examples of other commodities where the market has turned higher, such as non-ferrous metals, which have recovered from lows in March 2020.

“This is Chinese consumption first and the fact that everybody is looking at an energy transition that will use less oil, with more electric cars,” he said. “When you think of electricity, it uses copper.”

He also pointed to increases in the price of steel in China as well as lumber.

“In the United States, 80% of the houses are made of wood,” he explained. “Prices for lumber have been multiplied by four because there is a boom in the building industry.”

“This is the explanation we find for many commodities. We have a boom in demand and for the moment the supply chain is still confronted with problems, problems of production and, of course, also problems of logistics.”

Prices are high for grains and oilseeds, but also for animal products and sugar. He noted rising wheat

Nicolay Gorbachev, president of the Ukrainian Grain Union, takes part in a panel discussion during the conference.



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prices but added that “the most exciting things have been happening, as you know, on corn.”

“The rise is pretty impressive,” he said. “For some time, we had that extraordinary situation of corn prices being higher than wheat prices, with some times, by the way, milling wheat being used for animal feed.”

The story was the same for soybeans, despite good production prospects for Brazil. Palm oil was also up, despite production problems in Malaysia linked to the pandemic.

“Many laborers working in palm oil estates in Malaysia come from Bangladesh and couldn’t go back to

the country because of the limits to travel,” he explained.

Chalmin said China now is the biggest influencer of the market.

He had forecast that China would import 50 million tonnes of grain in 2021, harking back to when the imports of the former Soviet Union were at that level.

“For the decade during the 1980s, the USSR was the real master of the world grain market,” he said.

China’s pork production is being rebuilt after African swine fever on more modern lines.

“The small pig producer in the farm backyard is probably an image of the past,” he said. “That means that they will be more and more dependent not only on proteins, such as soybeans, but also on cereals.”

Chalmin looked at the situation in the European Union, currently negotiating a reformed version of its Common Agricultural Policy. He explained that the European Parliament, the European Commission (the Union’s civil service) and the Council of Ministers of its Member States must agree to the deal.

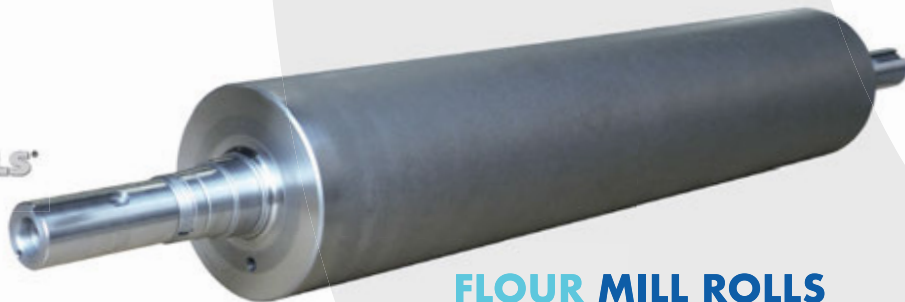
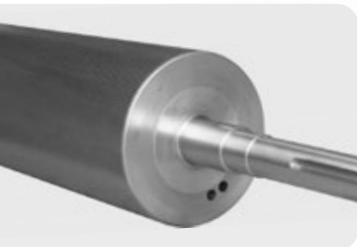
“You have to build a common position out of those three institutions, which are constituted by 27 countries,” he said. “I was thinking that things could get

The crisis has really profited China. China got out from the crisis as early as mid-2020.

Philippe Chalmin, president, Cyclope



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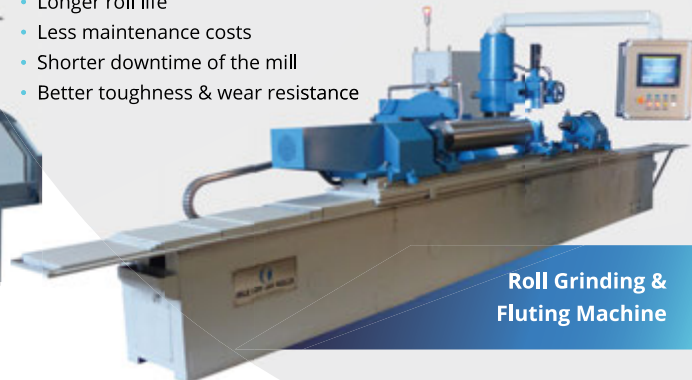
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slightly easier once the British were out of Europe. Unfortunately, this is not the case.”

The EU aims to make its farm policies greener, cutting the use of agricultural chemicals and increasing the area designated for organic farming to 25% of the total.

The USDA, he explained, has worked out that the EU’s plans would cut grain production by 49%. The changes would take Europe, more and more, out of world grain markets.

“What is clear is that Europe is looking the other way,” he said. “This is good news, I think, for you. The Black Sea will be more than ever the grain basket of the world.”

China growth continues

James Zhou, chief commercial officer and head, Louis Dreyfus, Asia Region, focused on China, describing changes in its population as offering “opportunities as well as challenges.”

Referring to the most recent census, he said the total population base probably was bigger than many people were expecting.

“It is above 1.41 billion,” he added, explaining as well

that the urbanization rate, as people move from the countryside to cities, was set to reach 70% by 2030. “China is starting to become an aging society earlier than people were forecasting,” he also noted.

GDP growth has been slowing, but he explained that China has been recovering very well from the economic effects of the pandemic.

“The income growth, especially the real disposable income growth for individuals, will continue to grow,” he said.

Turning to consumption of agricultural products, he said: “This is still a growth story. The main growth will come from corn. The oilseeds, the vegetable oil growth forecast is more modest.”

Animal protein consumption growth is set to continue, he said, but beyond 2030 the pace will continue to slow down and most likely will be flat after that. **WG**

Chris Lyddon is *World Grain’s* European correspondent. He may be contacted at: cailyddon@gmail.com

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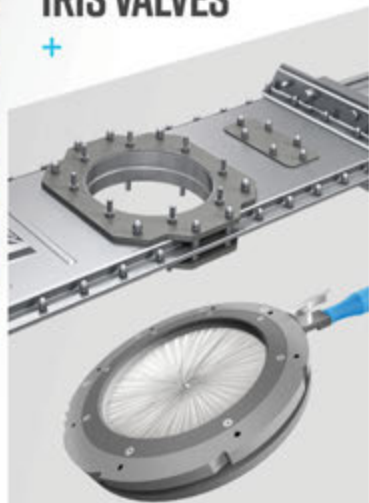


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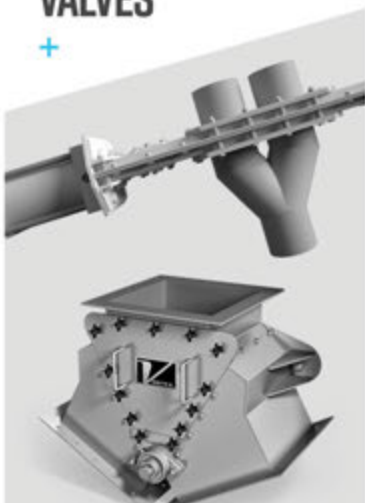
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GEAPS

ready for in-person Exchange

The first live event since 2019 is planned Aug. 6-9 in Columbus, Ohio, US

by Susan Reidy

With COVID-19 safety protocols in place and an information-packed agenda, the Grain Elevator and Processing Society (GEAPS) is ready for its first in-person Exchange since 2019.

Due to the pandemic, the 2020 show initially was postponed and then canceled. The 2021 event originally was scheduled for February, when the Exchange traditionally has been held, but was postponed to Aug. 6-9 due to the pandemic and the flu season.

“The event is going to look very similar as it would have in winter,” Adrienne Fjerstad-Miller, conference and expo director, said of the event, which will be at the Greater Columbus Convention Center in Columbus, Ohio, US. “We actually get to have a social event outside, which we normally wouldn’t be able to do in February and March in a lot of those locations. As far as what we’re planning schedule wise, it will be very similar to past Exchanges.”

Five weeks out from the show, registration was on pace with previous Exchanges. Fjerstad-Miller said they will have a better idea of any attendance impact closer to the early bird registration deadline in mid-July.

“We know that it’s not going to look like KC Exchange in 2017,” she said. “People are still easing back into it, but I think we’re going to have a good showing.”

While a virtual option will not be offered, the education sessions will be recorded and likely offered to membership at some point in the future, she said.

COVID safety measures will still be in place, but the requirements did lessen on June 8 and are expected to ease further in July. Initially, the list of precautions was pretty long and included 10-foot one-way aisles in the Expo, six-feet of spacing everywhere, booth worker limitations, temperature checks and more.

“All of that has gone away, which is nice because we

GEAPS Exchange will be a live event Aug. 6-9 at the Greater Columbus Convention Center in Columbus, Ohio, US.

Photo by Brad Feinkopf Photography



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won't have to worry about turning anyone away from education sessions because we've reached capacity," Fjerstad-Miller said. "But we are still going to be operating under best practices."

That will include wearing facemasks, more intensive cleaning by the convention center, hand-sanitizing stations and use of a separate set of doors for entering and exiting the Expo. In addition, during registration all attendees must provide information for contact tracing purposes, complete a short questionnaire and sign a waiver of liability.

Lunch still will be offered for three hours each day and will be served using practices for safety and will not include the traditional buffet. Seating will be available for attendees in the expo hall and exhibitors may eat and drink in their booth space if they wish.

"Logistically, it's going to feel more back to normal but with a focus on cleanliness," Fjerstad-Miller said. "We've heard a lot of people say this is what they've been waiting for. So many groups have done virtual conferences and events. They helped bridge the gap and they certainly have value, but they just don't replace what can be gained from an in-person conference and trade show.

We look forward to facilitating that organic exchange of ideas and networking that happens when people from the same industry gather again in one place."

Education programs

As in the past, GEAPS Exchange will feature 30 hours of education, an opening and closing workshop and the Idea Exchange, highlighting new products.

The opening workshop on Aug. 7 will focus on a Commitment to Safety with a discussion by a panel of experts. Industry leaders and safety professionals will provide a first-hand account of real-life safety situations and the methods they have implemented to correct hazards and prevent injuries. It will be presented by Dee Jepsen, professor, agriculture safety and health, Ohio State University, with additional speakers to be decided.

The closing workshop on Aug. 9 will cover how owners can avoid costly project problems even when working with a general contractor. Jim Gales, capital project consultant with CHS, will examine some case studies of project disasters and probable root causes. Consideration will be given to what transpires after the disaster and the relationship between the owner

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and the contractor. It will include a discussion on how to prepare for lawyers and insurance companies, and the heavy involvement between the owner and project stakeholders.

Idea Exchange, planned on Aug. 7, will feature a variety of participants with short presentations on what's new in the industry. Topics for the What's New segment include:

- Barge Stowing Exam Camera System – Seedburo
- Self-Learning Custom Stroke Electric Actuator – LINAK
- TSS2 – Anderson Engineering
- SureTrack PRO – AGI
- Guardian Positioning System – JMI Covers, LLC

The Small Changes...Big Impact portion includes ChainAdvancer for Changing Paddles on Box Conveyor Chain by Michigan Agricultural Commodities. More will be added later to both parts of the Idea Exchange.

Education sessions on Aug. 7 and 8 will cover a variety of topics, including getting inside a control panel, reducing injuries from belt conveyors, FDA audits, silo design, OSHA and EPA regulatory updates and remediation of existing structures.

The Expo will feature more than 300 exhibitors along with training pods, which this year will focus on confined space solutions. Oklahoma State University will again be demonstrating grain entrapment rescues with its training trailer.

Several special events also are planned, including the Get-Acquainted Party from 7-10 p.m. on Aug. 6 themed as Aug-tober Fest.

The Welcome Reception is planned from 4:30-6 p.m. Aug. 7 in the Expo Hall and provides an opportunity to network and explore the hall on the first day of the Expo.

Exchange concludes with the President's Reception from 4:30-6 p.m. on Aug. 9. Unlike previous years, this event will be held outside. The event will include networking opportunities and a short awards ceremony, hors d'oeuvres and drinks.

"We're really excited we get to see everyone again, and hopefully some new faces as well," Fjerstad-Miller said.

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GEAPS EXCHANGE 2021 Products and Services

The Grain Elevator and Processing Society (GEAPS) Exchange 2021 is scheduled Aug. 6-9 in Columbus, Ohio, US. Along with more than 40 hours of educational programming and multiple networking opportunities, the event includes the expo. This year's expo will include more than 300 exhibitors featuring the latest technologies and services in the grain storage and handling industry. The expo is open 11:15 a.m. to 6 p.m. on Saturday, Aug. 7, with the welcome reception from 4:30 to 6 p.m. It is open from 9:45 a.m. to 3 p.m. on Sunday, Aug. 8, and from 9:45 a.m. to 1:45 p.m. on Monday, Aug. 9. Following are products and services from World Grain advertisers who will be exhibiting at GEAPS.



Grain handling, port logistics

In the grain sector, **Bedeschi** is a manufacturing and project engineering company with a global outlook, skilled in the design, production and supply of machines and integrated systems for grain handling and storage (shiploaders, shipunloaders, belt conveyors, pipe conveyors, enclosed conveyors and any other ancillary equipment). For the material handling sector, Bedeschi provides design, engineering and manufacturing of dry bulk handling and everything related to port logistics, on-shore and off-shore (transshipment, shiploaders, ship unloaders) from coal to food and much more.



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Cornado Grain Spreader

Sioux Steel Co.'s Cornado Grain Spreader features an adjustable trap door and lower deflector to ensure there is a consistent spread of grain at any flow rate. Created to fit grain bins measuring 24 to 42 feet in diameter and 48 to 60 feet in diameter, the Cornado has the ability to handle up to 8,000 bph. The unique design allows for access to the grease bearings and the ability to adjust the spreader from the top of the bin.



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Enclosed belt conveyors

Hi Roller Conveyors, Sioux Falls, South Dakota, US, designs and manufactures enclosed belt conveyors for grain. The conveyors are designed to contain dust and spills and automatically reload the material back on to the belt. Products are available in carbon steel, stainless steel, or galvanized. Their original model was developed over 35 years ago, and the enclosed belt conveyor has become the standard of the industry.



Hazard monitoring system

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A PERFECT RECIPE FOR LENGTHY dryness

Conditions are favorable for multiple dry years in North America

by Drew Lerner

Serious drought was enhanced by blistering heat at times in June from the western United States into western Canada. Reports of dwindling water supply and fears of extreme water shortages made headlines along with never-before-seen temperatures of up to 118 degrees Fahrenheit in the US Pacific Northwest. The concerns are real, and now that evidence is beginning to rise over the potential return of La Niña late this year, those concerns are likely to be perpetuated into 2022.

World Weather, Inc. is convinced that we are moving into a period of multiple dry years in North America that will present hardship that some farmers and consumers have not had to deal with in decades, and for some folks their entire lifetime. There is increasing evidence that the same mechanisms responsible for multiple dry years in the 1980s, 1950s, 1930s, the early 1900s and a couple of times in the 1800s are coming together once again.

The current drought encompassing much of western North America is the perfect seedling to troubles that will continue in 2022. Some computer forecast models are now suggesting La Niña will return late this year. If that happens, World Weather, Inc. believes it may last for a much longer period than that which occurred last year. The evolution of La Niña will be occurring simultaneously with the negative phase of Pacific Decadal Oscillation (PDO), and both will be occurring in a 22-year solar cycle that has promoted more significant droughts in North America than at other times in the solar cycle.

PDO is an ocean temperature phenomenon that tends to have great influence on North American weather, especially in the summer. The PDO has a negative phase and a positive phase. The negative phase includes cooler-than-usual ocean temperatures off the Pacific US coast with warm water relative to normal over the central North Pacific. The negative phase of PDO tends to produce a deep trough of low pressure over the western United States during the summer, which forces a summertime ridge of high pressure to the east, resulting in some excessive heat and dryness in parts of the Midwest instead of favoring the Great Plains in other years.

La Niña creates multiple problems. First, the winter tends to be drier than usual across the southern United States. That would not bode well for California, the southern Rocky Mountain region and northern Mexico, which are hoping for a breakdown in drought conditions during the coming summer and winter. Summer rainfall in these areas may be close to normal but if La Niña evolves, winter precipitation could be significantly lighter than usual — like last winter. La Niña also tends to produce below-average precipitation and warmer-than-usual temperatures in the US Plains and western Corn and Soybean Belt during the winter and spring. If this summer ends drier than usual in the western Corn Belt and Plains and is followed by La Niña during the winter and spring, there may be a greater moisture deficit to deal with at the beginning of the 2022 growing season.

La Niña summers tend to have less rainfall and warm-



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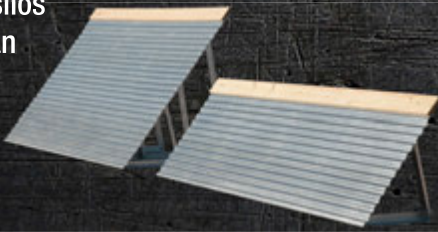
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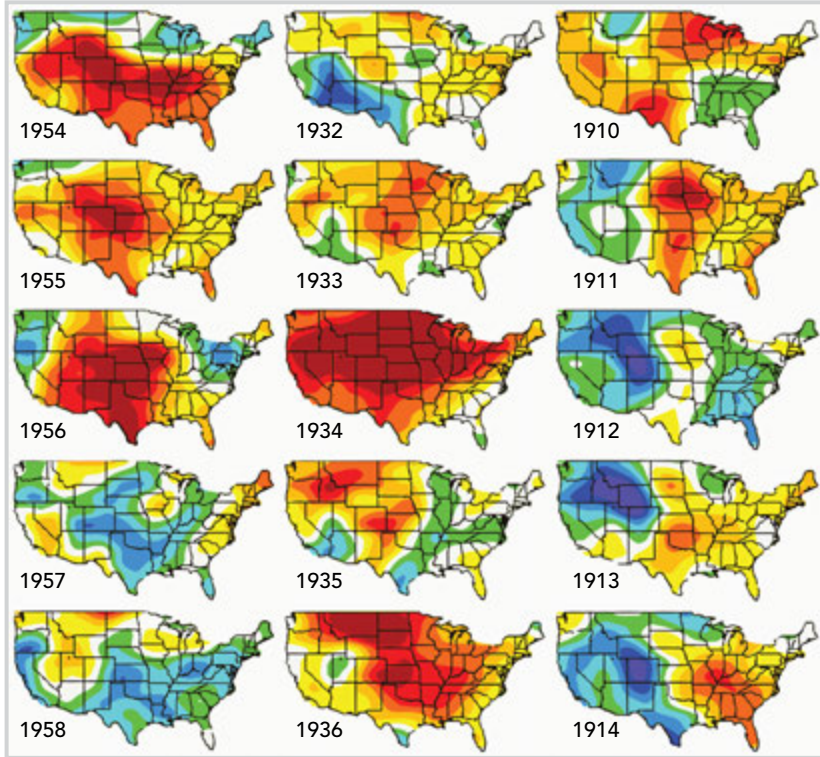
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er temperatures relative to other years. Recent summer weather trends have generated higher-than-average rainfall in the Midwest, making a La Niña event less threatening since rainfall might be more seasonable. However, when adding in the potential bias that comes from the negative phase of PDO, the below-average precipitation bias and warmer-than-usual temperatures next summer could prove quite threatening, especially with dryness already built into the soil from this year’s drier finish to the growing season.

Multiple years of dryness seem to occur between the sunspot minimum and maximum years at 22-year intervals. The period from 2021 through 2024 is one of these more favored periods for dryness over multiple years. La Niña and PDO will increase the likelihood of this recurrence.

Source: NOAA

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Solar cycle impact

The coup de grace of all of this is that the combination of La Niña, negative PDO and lingering dryness from 2021 will occur while moving from the solar minimum of sunspot numbers and closer to the sunspot maximum. This position in the solar cycle traditionally has been a drier biased period for portions of US crop areas. There seems to be a 22-year cycle in the solar cycle that promotes more notable bouts of dryness over multiple years in this part of the solar cycle.

The occurrence of this 22-year solar cycle simultaneously with La Niña, negative PDO and previous dryness raises the potential for not only dryness in late 2021 and 2022, but perhaps it will linger or occur again in 2023 or 2024.

This same relationship seems to also dictate dryness in parts of Russia, and a close watch on that part of the world is warranted over the next few years as well. In the meantime, it is important to note that while the United States has had multiple wet years recently, the Canadian Prairies have seen multiple years of dryness already with this year being the fourth in a row of drought in some areas of Saskatchewan, southern Alberta and Manitoba. The western and north-central US are just beginning to be impacted, with 2021 being the first year of such conditions.

Confidence is rising that this will not be the only drought year in the United States and a larger part of the nation could be impacted in 2022 if La Niña evolves as suggested and PDO stays in its negative phase of development. **WG**

Drew Lerner is senior agricultural meteorologist with World Weather, Inc. He may be reached at worldweather@bizkc.rr.com. World Weather, Inc. forecasts and comments pertaining to present, past and future weather conditions included in this report constitute the corporation's judgment as of the date of this report and are subject to change without notice.

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The current drought encompassing much of western North America is the perfect seedling to troubles that will continue in 2022.

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PREPARING FOR AUDITS IN A **pandemic**

On-site audits are resuming, but virtual or hybrid options are also available

by Frank Meek

A few years ago, I was providing a pre-audit for a whole corn holding facility in Central America. Sitting down with the sanitarian before doing the physical inspection, reviewing the pest control service reports, I asked if they had fixed the issues with some cleaning in the work room at silo No. 3 and other issues that the service technician had recorded. The answer was yes, of course. My reply? Prove it! I do not see any recording of that action. Because of the lack of that documentation, I dug deeper to see what else had not been done.

Unfortunately, many items in your facility make the perfect meal for pests such as cockroaches, rodents and stored product pests. Even one tiny insect or insect part in a box of cereal can impact your reputation. Grain handling facilities are often one of the first stops along the food supply chain, so a strong pest defense sets a good foundation for the other stages.

With products consistently coming and going, it's possible you don't have time to prioritize your pest management program and leave it in the hands of your pest control provider. While your provider is the expert when it comes to pests, your partnership is critical. You should have an active role in preventing pests. This means maintaining open communication, especially when it comes to food safety audits, so you are aware of what's going on and don't get any bad news from a third-party auditor.

If you already have a proper Integrated Pest Management (IPM) program in place, you're heading in the right direction. IPM programs help deter pests from entering and destroying your product by using preventive measures such as sanitation schedules, regular facility maintenance evaluations and exclusion techniques.

The last thing your business needs is a failed audit due to preventable pest issues. Failing a first-, second- or third-party audit can lead to long-term consequences such as a damaged reputation, reduced profits and worst of all — lost customers. In the short term, your operations can be halted, and the food supply chain disrupted yet again.

Some regulatory agencies and food safety auditors are or will be resuming on-site audits but the opportunity to conduct virtual audits or a hybrid option still exists. Keeping up with these audits ensures food safety regulations are being upheld and that your facility is running smoothly. The pest control portion of these audits should not be taken lightly. After all, pest control plays a significant role in all major food safety audits and can account for up to 20% of your score.

Get documentation in order

Your documentation is one of the most important parts of your food safety audit. Whether virtual or in-person, an auditor will want to see evidence that you have a

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proper pest management program in place. Digital copies of your documentation will be easiest for a virtual audit. However, having hard copies isn't a bad idea, either.

Most pest control providers now store documentation for their customers digitally, so ask your provider about how you can take advantage of this. There are many types of documentation you'll want to have available, including pest control service reports, pest sighting logs, and pesticide use records just to name a few. Even if you have an established IPM program for your facility, it's easy to lose points on your documentation, so ensure this in order at all times.

Keep staff in the loop

Your staff knows your facility just as well or better than you do, so it's essential to keep them involved in any audit preparations. Because audit preparation isn't just a periodic task, you should make sure your staff understands the importance of pest control for your business' success. Speak with your pest control provider to see what staff training options they can provide for your team. Most will do them for free.

These trainings can show your staff what types of pests to look for, what the early warning signs are of pest entry as well as the process of recording pest sightings and other important information. Staff training in pest control is especially important if you've had to make adjustments to your workforce during the pandemic and have different shifts working at times they're not used to.

Practice audits

As mentioned earlier, food safety audits require constant readiness. Part of that could involve holding practice audits, and one of the best ways to do these is through quarterly and annual assessments. During these assessments, you should meet with your pest control provider for a physical inspection of your facility — inside and out. You should also review your

documentation together and fill in any missing gaps.

A reliable and knowledgeable pest control partner will be able to identify any potential issues for your audit and encourage you to keep up with these practices to ensure you're prepared for the real thing. In the event you have an audit coming up soon but have not held a test audit in a while, you should focus on the following steps at least one week prior to your audit:

- Conduct an interior and exterior facility inspection
- Review your documentation with your pest control provider
- Make sure you are familiar with how to access any digital documentation portals
- Check all monitoring devices to make sure they are still present and in working condition.

Implement an IPM plan

At this stage, you should already have an IPM program in place. If you don't, or if your current program isn't providing the results you expected, contact your pest control provider as soon as possible to get an effective program in place. Your auditor will want to make sure you are proactive with your food

safety efforts when it comes to keeping pests out of your facility. Your IPM contract should detail you and your pest control partner's roles and responsibilities, a risk assessment plan and the scope of service. Not sure what's in your contract? Schedule a meeting with your pest control provider.

Your pest control partner knows that food safety is a top priority for your business and that your reputation depends on it. As the industry continues to navigate operating in a pandemic, maintaining an effective pest management program and current records will give you a solid foundation when it comes to audits, no matter the format.

With public health concerns still high, consumers and suppliers alike will be grateful for your increased attention to maintaining industry regulations. **WG**

Frank Meek is a technical services manager for Rollins. As a board-certified entomologist and 30-year industry veteran, he is an acknowledged leader in the field of pest management. For more information, email fmeek@rollins.com or visit www.orkincommercial.com.

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ENSURING OPTIMAL FLOUR QUALITY

Arrius grinding system contributes to achieving a consistent, excellent product

by Urs Dübendorfer

Bühler's Arrius is a fully integrated grinding system that sets high standards for consistent product quality and efficiency. With its pre-stressed rollerpack, it provides a stable grinding process, putting the power in millers' hands to meet their customers' increasingly complex requirements.

Flour millers worldwide face numerous challenges, from price pressure to increased competition and demanding flour purchasers. Today's flour market is predominantly shaped by downstream processes, like industrial bakeries and pasta production. These highly automated factories with streamlined processes need flour with consistent properties such as a specific particle size distribution and moisture content.

Across different markets and geographies, these requirements will differ but be no less precise. In addition, some also require flour for specialized end products.

At the same time, as these requirements are becoming tighter, millers face the additional challenge that it is also becoming increasingly difficult to hire well-trained staff. This adds to the pressure modern mills find themselves under.

To meet these challenges, millers need to be able to rely on efficient processes that maintain a consistent quality output and meet specific requirements. Bühler's Arrius integrated grinding system plays a key role in that.

Starch damage: A closer look

Starch damage is one of the main parameters that determine the quality of flour. During the growth phase

in the field, protein and starch are stored in the wheat kernel, providing it with the nutrition it needs for its reproduction. The starch granules within the endosperm are approximately the size of the diameter of a human hair — between 20 to 80 micrometers. During milling, the rollers can crack the shell of the kernels, exposing the content and changing its chemical and physical properties.

Millers can't influence the protein content in the wheat kernel, but they can control and steer starch damage and consequently the quality of the end-product. Each market has its specific characteristics and requirements. The most successful players in the market will be the ones who hold tightly to consistency parameters.

Operators typically check samples of the product in the lab on a regular basis, as the setting of the rolls might shift slightly during operation. The Arrius offers a solution to this problem. By measuring the grinding force on both sides of the rollers, it provides a clear indication of the status of the grinding work and consequently ensures that grinding performance remains stable throughout. In combination with the data on the flow rate, this enables millers to produce a consistent, high-quality product.

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Arrius can be operated via smartphone, tablet or PC within the mill. In addition, the control system can be integrated into the Mercury MES (Manufacturing Execution System).

Particle size distribution

In the process of grinding, the rollers apply two different forces on the grist: friction, as the two rollers rotate at different speed, and pressure. Overall, friction creates smaller particles, resulting in a finer flour, but does not break up the miniscule starch granules. Grinding pressure, on the other hand, is strongly correlated to starch damage.

When starch granules are damaged, it's like the raincoat has been taken off and water and enzymes can get in.

Different products and markets demand different grades of starch damage. Pasta and noodle production requires low levels of starch damage as this results in less water needed to reach the right level of viscosity for the dough. Consequently, energy can be saved in the drying process.

A typical Japanese noodle producer demands a fine flour but little starch damage. Here, the consistency of particle sizes also plays an important role. For other products, higher levels of water absorption are required, which in turn need a higher degree of starch damage. These are typically products with shorter fermentation times, such as toast.

Achieving the correct particle size distribution on a consistent basis is key to the quality of the end product.

Particle size distribution can change the overall amount of surface of the flour by a huge factor. It is essential to have full control over it so that operators can ensure that the right amount of water consistently reaches a defined surface area.

Fluctuations often take place unnoticed, compromising dough conditions and having a detrimental effect on efficiency in the downstream processes. The Arrius

rollerpack achieves grinding results that are consistent in terms of particle size distribution, too.

Temperature control

Generally, a miller will always aim to avoid excess heat. Mechanical energy that is transformed into heat represents a loss. But heat also affects protein characteristics. Protein subjected to temperatures above 42 degrees C begins to react, coagulation starts and rheological behavior changes.

With the built-in force sensors, the Arrius integrated grinding system provides a significant improvement, taking the grinding force as a fingerprint for what happens in the grinding gap. With the temperature monitoring option, operators gain valuable information on the temperature distribution along the rollers.

If the right end of a roller shows a different temperature than the left one, the grinding process will be quite different as well. Counter reactions set in as the hotter part of the roller expands, causing temperatures to rise even further. Control over the process is lost and consistency of the product output impaired.

You want a consistent temperature at the lowest level. If you can keep the temperature at the same level, you have confirmation that consistency is maintained. The more information a miller can obtain, the better the miller can control the process and keep the product consistent.

Information on the grinding force and temperature distribution are great indicators on the status of the grinding gap. Additional digital services from Bühler provide accumulated data from sensors and machine parameters such as energy consumption.

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Thanks to the integrated webserver, all this data is accessible via a PC or via mobile devices so that millers are no longer bound to the control room.

Other benefits

The Arrius offers millers precise control over each of these key parameters, as well as other benefits:

- Energy savings: Compared to conventional belt drives, the new integrated drive unit consisting of motor and gearbox allows for mechanical energy recovery saving up to 10% of energy during the grinding process.
- Efficient use of space: Arrius relies on direct suction and an integrated drive unit and control cabinet that requires only one floor and can be installed flexibly in the plant, resulting in a significant reduction of building investment costs.
- Quick installation: The retrofit with the Arrius can be undertaken with a minimum of time investment. A pilot retrofit installation and commissioning of 12 Arrius integrated grinding systems required less than a month from start to finish.
- Flexibility thanks to mobile control and manage-

ment: Arrius can be operated via smartphone, tablet or PC within the mill. In addition, the control system can be integrated into the Mercury MES (Manufacturing Execution System).

'Consistency is king'

The enhanced mechanical performance of the Arrius significantly contributes to the quest for consistent quality needed to succeed in today's demanding markets. The improved monitoring and improved performance of starch damage represents a milestone in modern milling.

In combination with the smart sensor technology, operators have in-depth information at their disposal ensuring excellence in process control. Arrius changes the market's mantra, "Consistency is king," from a challenge to an opportunity. **WG**

Urs Dübendorfer is a senior adviser at Bühler. He may be reached at urs.duebendorfer@buhlergroup.com

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Ocrim completes energy-efficient mill in Italy

MODICA, ITALY — Ocrim has completed a 200-tpd soft wheat mill for Molino Roccasalva Gaetano with specific attention to sanitation and wholesomeness of the end product.

For this purpose, the grinding section was completed with stainless steel drop piping and plansifters equipped with sieves from the anti-bacterial and anti-microbial series, the latest innovation by Ocrim relative to sanitation. Great attention also was dedicated to the flour silo, a crucial node in soft wheat processing, equipped with a mixing line for the production of numerous types of flours, Ocrim said.

From an energy standpoint, the mill was created and designed for the application of an intelligent energy-saving system, through the use of synchronous reluctance motors. Installed in place of traditional motors to control the roller mills, the synchronous reluctance motors operate in the optimal situation of yield, guaranteeing the best in current efficiency and, thanks to the inverter, they provide a dynamic response to the kg/h workloads that the motor of each single machine is subjected to. All of this allows work to be constantly carried out at the maximum yield threshold and guarantees savings over 30%. Ocrim said it was careful to seize this technology that the market offers, applying it for the first time to

the field of grain grinding. Inverters also were installed on the main machines for the pressurized and suction pneumatic conveyors to achieve the maximum efficiency as the workloads of the entire plant vary.

The partnership between Ocrim and Roccasalva is longstanding. More than 10 years ago, Ocrim built a 200-tpd durum wheat mill for the Sicilian company for semolina production and pasta making with a line dedicated to the production of re-ground semolina, increasing the capacity to 300 tpd in just two years.

Today, with this new project, Molino Roccasalva Gaetano has become the largest grinding hub in Sicily, with a durum wheat mill offering a capacity of 200 tpd for the production of conventional and organic re-ground semolina, another durum wheat mill with 300-tpd capacity for the production of semolina for pasta making, both conventional and organic, and lastly, a new soft wheat plant with 200-tpd capacity for the production of high-quality conventional and organic flours. Ocrim said all of the plants have been designed and built in compliance with the strictest hygiene and sanitation standards, guaranteeing a perfect state of product safety and wholesomeness.

■ Ocrim to build new lines for North Dakota Mill

GRAND FORKS, NORTH DAKOTA, US — Ocrim will build two new milling plants and revamp an existing one for North Dakota Mill.

The H mill, for durum wheat processing, will have a capacity of 360 tpd while the I mill, for hard wheat, will have a capacity of 250 tpd.

For the existing 250-tpd D mill, a conversion from durum wheat to hard and soft wheat is foreseen, with an increase in capacity and the integration of the latest machines from Ocrim.

Particular attention will be paid to sanitation rules in the H and I mills as a series of particularities are envisaged, including the installation of all the process machines, the pneumatic system and the pipes in stainless steel. In both mills, cutting-edge cleaning technology is provided, also through the use of

the latest-generation color sorters. In the H mill, the debranning section for durum grain will include diamond technology.

All three mills will see energy savings through the installation of innovative systems that allow for considerable energy optimization, Ocrim said.

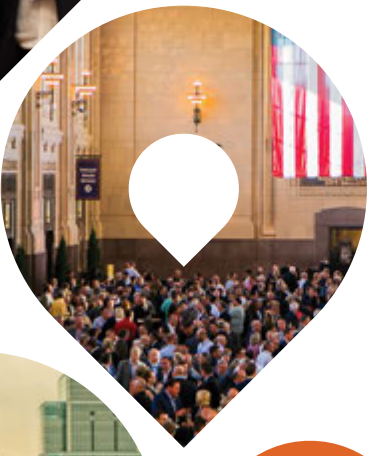
“We have chosen Ocrim because it has always proven to be a loyal and supportive partner,” said Vance Taylor, president and general manager of North Dakota Mill. “We demanded very short delivery times and Ocrim accepted this challenge, precisely because it is aware of its organizational, management and strategic skills, skills already put to the test even in this severe pandemic period. Together we have already won many challenges and we, at North Dakota Mill, are excited to ‘walk the Italian way again.’”

■ IMAS completes flour, feed mills in Uzbekistan

KONYA, TURKEY — IMAS commissioned two new facilities in Uzbekistan this year.

The projects included a 120-tpd flour mill and a 240-tpd feed mill. In addition to these projects, IMAS has two more ongoing projects in Uzbekistan.

IMAS establishes flour mills under the Milleral brand and feed mills with the Viteral brand. The first Viteral feed mill established in Uzbekistan is located in Samarkand. Company management said discussions for new feed mill projects are ongoing and they will build new feed mills in the region this year.



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■ **VIGAN continues long history of projects in Bangladesh**

NIVELLES, BELGIUM — VIGAN has a long history of working with Bangladesh and recently completed installation of a fourth unloader for the Ministry of Food (DG Food).

The fourth unloader, installed at Chattogram, was delayed due to the COVID-19 pandemic.

DG Food purchased its first pneumatic unloader from VIGAN in 2008 for Chittagong Grain Silos. A second was commissioned later that year and a third in 2018.

DG Food also purchased two VIGAN unloaders and one loader for its grain silos in Mongla in 2013.

For the inner country, DG Food purchased a VIGAN barge loader in Ashunganj in 2019 and two barge unloaders for their grain silos in Narayanganj. The second one will be mounted in the coming month.



In the private sector, Bashundara Mills has used a barge unloader for its grain intake since 2011.

“We are both happy and proud that a vast country like Bangladesh keeps its trust in VIGAN technology and gladly does what is needed to have our 11 machines operate 24/7,” VIGAN said.

■ **Henry Simon completes Golchha flour mill in India**

NEW DELHI, INDIA — Henry Simon recently commissioned its first flour mill project in 2021 at Golchha Flour Mills Pvt. Ltd., Forbesganj, Bihar, India.

Golchha Flour Mills, founded in 2011, has become well known in the processing industry and has a reputation for product quality.

The mill capacity expanded from 275 tpd to approximately 400 tpd with Henry Simon equipment, including scourers, roller mills, plansifters, etc. Its engineering team provided all necessary engineering support in designing the mill and engineering details. It used the latest design software to provide detailed 3D-modeling for machine installation, spouting, and ducting designs with aspiration, etc., to its minute details. This made the installation easier and faster and the mill was installed in approximately four months. The final product, which uses this state-of-the-art Henry Simon milling technology, is widely appreciated by customers and Golchha group themselves, Henry Simon said.



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■ Bruks Siwertell commissions unloader at Mexico port

BJUV, SWEDEN — Bruks Siwertell recently commissioned a Siwertell ST 640-M ship unloader for Puertos Especializados Transnacionales PETRA’s (a subsidiary of Grupo Gramosa) new agri-bulk terminal in Veracruz, Mexico.

Originally ordered in 2018 and delivered fully assembled in 2019, the terminal is now complete and, following operator training, its new ship unloader has been brought online. Gramosa said it chose Siwertell technology because it outperformed all other competitor systems during a four-month selection process; particularly the two 600-tph pneumatic systems it was initially considering.

The analysis showed that a single Siwertell ST 640-M ship unloader would be a more economical solution in the long

run. The operating costs comparing two pneumatic unloaders, delivering an equal total capacity, was lower. Also, the Siwertell unloader offered cost savings from reduced berth occupancy as through-ship efficiency was greater.

“One of the many outstanding qualities of the Siwertell ship unloader is its ability to handle grains gently,” said Per Wahlström, contract manager, Bruks Siwertell. “The screw-type conveyor offers steady conveying velocities, with minimal particle collisions within the conveyor, keeping material degradation to a minimum. But this was not all, the Siwertell unloader was selected after comparing many features such as operating principles and mechanisms, investment costs, as well as operating costs. In combination, the cost and energy savings, efficiency gains, and gentle grain handling, meant that Gramosa picked a Siwertell unloader instead. Its new owners are happy with the initial performance tests. In fact, the capacity of the unloader currently exceeds the capacity of the receiving equipment. So, the unloader is ready to offer more, should the terminal require it.”

The new, rail-mounted Siwertell ship unloader is totally enclosed, ensuring a spillage and dust-free operation. It has a continuous rated capacity of 1,200 tph and a peak capacity of 1,320 tph, discharging vessels up to 80,000 dwt.



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Alapala completes flour mill in Ecuador

ISTANBUL, TURKEY — Alapala recently completed a new flour mill project for Molinos Miraflores SA in Ambato, Ecuador.

Operating for more than 100 years, Molinos Miraflores is one of the most preferred flour brands in Ecuador. The company decided to invest in a new flour milling plant in the Ambato area, which was completed in May.

Alapala completed a new flour mill for Molinos Miraflores in Ecuador.



Alapala supplied and installed the turnkey facility, including project design, manufacturing, project management, installation, and commissioning services. With the completion of the project, Alapala successfully delivered its second turnkey reference project in the country.

The mill operates with a capacity of 150 tonnes per day, using hard and semi-hard wheat to produce high-quality bakery and cake flours for domestic distribution. The new steel silos of the plant have a total grain storage capacity of 4,500 tonnes, integrated with an intake pit and pre-cleaning system.

The steel structure of the new flour mill was provided by Alapala Construction, which specializes in the design, supply, and construction of industrial buildings worldwide.

The flour mill has an advanced automation system combined with Scada software. By enabling centralized monitoring of the entire process from wheat intake to flour packaging, the system provides integrated process control and traceability advantages. The system also has an advanced report generation ability for production, yield, efficiency, etc., data.

The remote connection feature of the system also enables the Alapala after-sales team to access the mill for technical assistance, including inspection, error diagnosis, calibration, and troubleshooting.

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■ Satake board appoints Matsumoto company president



HIROSHIMA, JAPAN — The Satake Corp. board appointed Kazuhisa Matsumoto as the new company president, effective June 1.

Matsumoto was born and raised in Hiroshima prefecture, Japan, and earned his degree in business administration from Tokyo Keizai University. He joined Satake in 1991 and has since served in many functions throughout the organization. Before joining Satake's board of directors in 2018, he served for eight years as the head of the Corporate Planning Office. Due to his knowledge and leadership experience, in

2019 he was appointed as the senior managing director, and in 2020 became the executive vice president.

“Satake has been leading the grain processing industry for over 125 years,” Matsumoto said. “As our company president, I will continue working with our business and industry partners to benefit society with high quality products and cutting-edge technology.”

The board also appointed the previous chairperson, Toshiko Satake, as an honorary chairperson; Takeshi Fukumori as a representative director and chairperson; and Kazuyuki Kihara as a representative director and vice chairperson.

■ BoMill names new CTO

MALMÖ, SWEDEN — BoMill AB has hired Fredrik Nilsson as chief technology officer. He succeeds Stefan Christensson.

In his new role, Nilsson will have responsibility for managing the technical part of the organization and for driving technical development in line with market and customer needs.

Nilsson has spent the past 18 years of his career at JBT FoodTech in a variety of key technical and senior management positions, most recently as business system manager.

“BoMill welcomes Fredrik as our new CTO,” said Andreas

Jeppsson, chief executive officer. “He will bring valuable expertise to further support our business strategy and on-going developments. We would also like to thank Stefan Christensson for his successful contribution, commitment and expertise to BoMill's development during a very important phase of our company.”

BoMill has expertise in quality sorting of wheat, durum wheat and malting barley. The company has developed and markets a patented technology for sorting grains on a commercial scale, based on the internal qualities of each kernel.



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1991

ADM Milling Co., Leawood, Kansas, US, recently acquired the Camp Hill, Pennsylvania, US, flour mill from Bay State Milling Co., Quincy, Massachusetts, US. At the same time, Bay State detailed plans for milling capacity expansions at two of its six remaining facilities. The Camp Hill facility has a daily milling capacity of 265 tonnes of soft wheat. The mill was built in 1956 by Spangler’s Flour Mills, Inc. Bay State bought the mill from Spangler’s in 1964. ADM Milling is the nation’s second largest flour milling company.

Chore-Time Equipment and Brock Manufacturing have established a European office and warehouse in Deurne, Netherlands, said James C. Evans, president of CTB, Inc., Milford, Indiana, US. The new office has leased 440 square meters of space in Deurne. Johannes Raeds, manager for Europe, will oversee the new office and warehouse complex.

2001

Osamu Shoda, president of Nisshin Flour Milling Co. Ltd., Japan’s largest flour miller and a leading food manufacturer, announced the creation of a holding company structure under the name Nisshin Sefun Group Inc., effective July 2. The group comprises 33 consolidated companies, with milling operating as Nisshin Flour Milling Inc., food as Nisshin Foods Inc., and feed as Nisshin Feed Inc. Milling includes Rogers Foods Ltd., the group’s British Columbia operation, while foods includes Medallion Foods, Inc., a pasta manufacturing unit at Tacoma, Washington, US. Shoda said Nisshin Milling, while emphasizing quality flour products, “will promote further enlargement of our global enterprise activities, aiming to be a leading international company.”

Construction has begun at AWB Ltd.’s grain center at Birchip gin Northwest Victoria. The Birchip grain center will store 130,000 tonnes of grain each harvest and will provide a state-of-the-art, highly efficient grain receival facility for grain growers in the area. The storage site comprises 80,000 tonnes of permanent and 50,000 tonnes of temporary bunkers. Efficiencies at the site, including fast rail out-loading, will make better use of rail assets and therefore provide cost savings to growers of around A\$4 per tonne, AWB said. The site is scheduled to open in November and will employ up to 30 people.

The incidence of neural tube defects in the United States has declined 19% following the fortification of enriched grain products, according to a recent study by the US Centers for Disease Control and Prevention. According to the CDC, the number of neural defects per 100,000 live births decreased to 30.5 after folic acid fortification, from 37.8 before fortification.

2011

Cargill announced on June 8 that it has realigned its senior leadership, including the naming of Dave MacLennan as president and chief operating officer. MacLennan joined Cargill in 1991 and has held various leadership positions within the financial, risk management, energy and animal protein businesses in the United States, London and Geneva. He is a member of the Corporate Leadership Team and was named chief financial officer and elected to the company’s board in 2008.

Melissa Alexander, former editor of *World Grain*, died on June 21 after a long battle with cancer. She was

61. Alexander began her career with Sosland Publishing Company in 1991 when she was named associate editor of *Milling & Baking News*. Later that year she was named editor of *World Grain* but also continued in her role with *Milling & Baking News* until she left the company in 1998. Even after she left Sosland, she continued to make important contributions to several of the company’s publications as a correspondent, writing the monthly *Grain Market Review* for *World Grain* and serving as editor of Sosland’s *Grain & Milling Annual*. Alexander is survived by her husband, Jim, her sister and two step-daughters.



Alexander

ADM Alliance Nutrition, Inc., a wholly owned subsidiary of Archer Daniels Midland Co. (ADM), has opened a new feed premix plant in Tianjin, China, to serve the growing Chinese market for animal nutrition products, the company announced on June 13. With an annual production capacity of 30,000 tonnes, the facility provides feed premixes to animal producers in the provinces of Henan, Hebei, Shandong, Shaanxi and Anhui, and the municipalities of Tianjin and Beijing. This is ADM Alliance Nutrition’s second premix plant in China. The company has operated a premix plant in Dalian, China, since 1995.

ConAgra Mills launched the SafeGuard Treatment & Delivery System for ready-to-eat flour at the Institute of Food Technologists’ (IFT) annual meeting and food expo in June in New Orleans. ConAgra said its SafeGuard system integrates milling, processing, post-treatment handling and delivery to extend ready-to-eat flour safety assurance from its plants to its customers’ plants.

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