

Contents

Policies	1
The multilateral trading system is the kernel of China's food security	1
China food security: agriculture sector drops hopes of 2023 start for GM corn crops.....	1
Food security drives China to cut soymeal use in animal feed.....	1
China grants 10-billion-yuan-subsidy supporting agricultural material purchase	2
China earmarks funds for crop pest control	2
China ups food security drive, plans to grow 90 per cent of its grain by 2032	2
China passes landmark law to protect Qinghai-Tibet Plateau ecosystem.....	2
Science, Technology and Environment.....	3
China achieves food security with small carbon footprint.....	3
Chinese scientists discover key genes for lodging resistance in maize	3
Chinese researchers find new mechanism to improve quality of cotton fiber	3
Agricultural technology to boost China's crop yield.....	4
China food security: focus on increased domestic soybean production	4
Chinese scientists eye breakthroughs in seed tech, warn against over-reliance on imports ..	4
Comprehensive assessment of the utilization of manure in China's croplands	5
China's space achievements transforming agriculture	5
Scientists in China's tea hub claim to have brewed cheaper & healthier alternative protein	5
World Bank approves loan to China for agricultural, rural development.....	6
Trade and Business	6
China's Jan-Feb soybean imports jump 16% on year	6
China to buy more homegrown soybeans for reserves	6
China's pig farms battle new surge in African swine fever	7
China's hog production remains stable, resilient	7
China's Africa ties: why food is the new focus	7
China, ASEAN aim for deepened agricultural cooperation.....	7

Policies

The multilateral trading system is the kernel of China's food security

[East Asia Forum, 23-03-2023] China's food imports have increased significantly since the nation joined the World Trade Organization (WTO) in 2001. Annual imports and net imports of food reached US\$160 and US\$93 billion, respectively, between 2019–2021. But as rural incomes rise and China's population falls the gap for trade to fill between domestic food production and consumption in the future is uncertain.

International trade has helped China balance food supply and demand.

Trade will continue to be important for China's food security and agricultural sustainability and will help ensure Chinese consumers have better and more nutritious diets as their incomes rise. Given China's large size, its food imports have substantial implications for global trade and food exporting countries. Increasing food production in China and improving the governance of the multilateral trading system upon which agricultural trade relies — including by banning export restrictions and embargoes — would benefit all food importers and exporters.

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China food security: agriculture sector drops hopes of 2023 start for GM corn crops

[SCMP, 04-04-2023] Leading Chinese seed companies have delayed hopes that commercial production of genetically modified (GM) corn will start this year, as Beijing has not provided a clear timeline despite a significant push for food security and calls to “revitalise the seed industry”.

Seed experts told their peers at the annual China Seed Congress in the country's southernmost province Hainan that they would have to wait until at least 2024 before they could expect a green light for mass plantation of GM corn.

They still, however, called for investment and expressed confidence that corn produced with GM technology would take 90 per cent of the market in five years' time.

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Food security drives China to cut soymeal use in animal feed

[Reuters, 14-04-2023] China's agriculture ministry issued a three-year action plan on 14 April to reduce soymeal use in animal feed as it tries to reduce its heavy reliance on soybean imports.

The new plan proposes soymeal ratios in animal feed should be reduced to less than 13% by 2025, from 14.5% in 2022.

Authorities in the world's top soybean importer already issued guidelines in 2021 to its animal feed industry recommending lower soymeal ratios.

The new plan would "guide the feed industry to reduce the amount of soybean meal, promote the saving and consumption reduction of feed grains, and contribute to ensuring the stable and safe supply of grain and important agricultural products", said the document, published by the Ministry of Agriculture and Rural Affairs.

China buys more than 60% of the world's traded soybeans, well over 90 million tonnes a year, largely from the United States and Brazil.

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China grants 10-billion-yuan-subsidy supporting agricultural material purchase

[GT, 17-04-2023] China's financial authority recently granted a new round of 10 billion yuan (\$1.46 billion) worth of subsidies to supporting purchase of agricultural material, move to secure the ongoing 2023 spring ploughing and boost farmers' initiatives, China's Ministry of Agriculture and Rural Affairs (MOA) said.

The latest issuance of subsidies will be directly granted to actual grain growers, including individual farmers, contracted farmers, household farmland, agricultural corporations and enterprises, as well as individuals and institutions in whole industrial chain connected to agricultural business, the MOA said.

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China earmarks funds for crop pest control

[China daily, 23-04-2023] China has recently earmarked its first round of funding this year to protect agricultural production from pests and diseases, the Ministry of Finance (MOF) said.

These funds, amounting to about 1.25 billion yuan (about \$181.8 million), were jointly allocated by the MOF and the Ministry of Agriculture and Rural Affairs.

They will be used to purchase pesticides and other tools needed for the prevention and control of crop pests and diseases, the MOF said, adding that the funds will also help subsidize related operations and services.

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China ups food security drive, plans to grow 90 per cent of its grain by 2032

[SCMP, 25-04-2023] China has significantly raised its grain self-sufficiency projections over the next decade by pledging to build a “diversified food supply system”, a move that has the potential to impact corn and soybean farmers in the United States and rice exporters in Thailand and Vietnam.

The flagship Agricultural Outlook Report for 2023-32 by the Ministry of Agriculture and Rural Affairs sets out China’s plan to grow 88.4 per cent of the grain – mainly referring to rice, wheat, corn and soybeans – it needs within a decade from the current level of 82 per cent.

It also plans to reduce grain imports to 122 million metric tonnes from last year’s 146.9 million metric tonnes, according to the report released by the agriculture ministry’s outlook committee.

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China passes landmark law to protect Qinghai-Tibet Plateau ecosystem

[China daily, 26-04-2023] China's top legislature adopted a law to protect the fragile ecosystem of the Qinghai-Tibet Plateau, known as "the roof of the world."

The law, passed at a standing committee session of the National People's Congress, the top legislature, will take effect on Sept 1.

The law on ecological conservation on the Qinghai-Tibet Plateau is a new addition to China's laws for special regions, following the enactment of the Yangtze River Protection Law, the Yellow River Protection Law, and the Black Soil Protection Law. However, the significance of the new law goes far beyond the plateau region.

The law outlines the overall layout of the plateau ecology security, stipulates protection and restoration measures, risk prevention and control, and safeguards and supervision.

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Science, Technology and Environment

China achieves food security with small carbon footprint

[China daily, 31-03-2023] China has achieved food security with a relatively low dose of greenhouse gas emissions, and its agricultural carbon footprint was of "basic and survival" level, a report said.

Food production produced about 9.5 percent of the country's gross domestic product in 2014. However, the equivalent of 825 million metric tons of carbon dioxide that was generated in the sector account for just 6.7 percent of China's total emissions, said the 2023 China Agriculture and Rural Village Low-Carbon Development Report.

The report said China's per capita carbon footprint in agriculture was just 0.96 ton of carbon dioxide equivalent, compared with more than 170 tons of the United States.

Despite the continuous rise in grain output in China, the amount of carbon dioxide emitted by every kilogram of food has dropped from 1.5 kg in 2004 to 1 kg in 2019, it added.

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Chinese scientists discover key genes for lodging resistance in maize

[Xinhua, 06-04-2023] Increasing the planting density of maize is an effective way to increase crop yield, but it will greatly increase the risk of root lodging, which poses a major threat to maize production, resulting in reduced grain yield and quality, and increased harvest costs.

The researchers from the Biotechnology Research Institute under the Chinese Academy of Agricultural Sciences, and other institutions in China identified ZmYUC2 and ZmYUC4, two key genes to regulate maize root architecture.

The study demonstrated that the ZmYUC4 single mutant and ZmYUC2/4 double mutant exhibit enlarged brace root angle compared with the wild-type plants, and evidently display enhanced root lodging resistance.

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Chinese researchers find new mechanism to improve quality of cotton fiber

[Xinhua, 10-04-2023] Chinese researchers recently discovered a plant hormone which can regulate cotton fiber growth and is expected to improve the quality of cotton fiber.

Brassinosteroid (BR), a growth-promoting phytohormone, regulates many plant growth processes, including cell development. However, the mechanism by which BR regulates fiber growth was poorly understood.

Researchers from the Institute of Cotton Research under the Chinese Academy of Agricultural Sciences discovered that BR can promote the molecular mechanism of cotton fiber elongation by modulating very-long-chain fatty acid biosynthesis.

The researchers published their study results in three journals namely Plant Cell, Plant Physiology and Plant Biotechnology Journal.

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Agricultural technology to boost China's crop yield

[Xinhua, 20-04-2023] Agricultural science and technology will help China increase crop yield in the next decade, according to a report.

The China Agricultural Outlook Report (2023-2032), released on 20th April at the 2023 China Agricultural Outlook Conference held at the Chinese Academy of Agricultural Sciences, reviewed the market situation of China's major agricultural products in 2022, and projected the production, consumption, trade, and price trends of these products in the next decade.

The report said China's grain output would likely reach 694 million tonnes in 2023, up 1.1 percent from the previous year. In the next decade, China will continue to build a diversified food supply system, improve the modernization level of agriculture in rural areas, enhance the ability to ensure the supply of agricultural products, and strengthen the competitiveness of agriculture, the report said.

The report also noted that China would see increasing trading partners for agricultural products and rising agricultural product trade with Southeast Asian countries, South American countries, and the Black Sea region.

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China food security: focus on increased domestic soybean production

[SCMP, 20-04-2023] China is aiming to increase soybean production this year as part of efforts to achieve greater food self-sufficiency amid escalating geopolitical tensions.

Beijing has doubled down on efforts to improve agricultural production and planting, elevating its significance to a political task and making soybean production a criteria to be used to judge the performance of officials, according to the State Council.

A heavy reliance on imported commodities has raised significant concerns about food security as China imports more than 80 per cent of the soybeans it uses to feed its people and livestock, with shipments coming mainly from Brazil and the United States.

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Chinese scientists eye breakthroughs in seed tech, warn against over-reliance on imports

[GT, 02-04-2023] Top Chinese agricultural scientists have warned against food security risks for the country due to a number of factors, including growing domestic demand and over-reliance on imports amid global uncertainties, while vowing to make breakthroughs in studying and finding better crop seeds that can increase output and quality.

At the China Seed Congress (CSC) and Nanfan Agricultural Silicon Valley Forum in Sanya, South China's Hainan Province, officials, top experts and industry players said that while China is still lagging behind the US and other advanced economies in terms of research and development (R&D) for crop seeds, the country has also made strides in building up its R&D infrastructure and capabilities in recent years.

Ensuring food security has become a top priority for China, as many factors, including geopolitical tensions and natural disasters, have exacerbated the risks of over-reliance on imported food, which has prompted measures to bolster domestic output to achieve self-sufficiency.

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Comprehensive assessment of the utilization of manure in China's croplands

[Nature, 19-04-2023] China's rapid increase in mass excreta and its environmental discharge have attracted substantial attention. However, cropland as a main destination of excreta utilization has not been extensively evaluated.

In a paper published by *Nature*, a group of Chinese researchers used national farmer survey data to assess the utilization of manure in croplands across China. The data included the inputs of manure nitrogen (N), phosphorus (P), and potassium (K) for cereals, fruits, vegetables, and other crops, along with the manure proportion of total N, P, and K inputs at the county level.

The results showed that the manure N, P, and K inputs were 6.85, 2.14, and 4.65 million tons (Mt), respectively, constituting 19.0%, 25.5%, and 31.1% of the total N, P, and K, respectively. The spatial distribution of the manure proportion of total inputs was lower in Eastern China and higher in Western China.

The results provide a detailed description of the utilization of manure nutrients in agricultural areas throughout China, which will serve as basic support for policymakers and researchers involved in future agricultural nutrient management in China.

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China's space achievements transforming agriculture

[Xinhua, 24-04-2023] The importance and benefits of space science and technology are highlighted once again as China celebrates the Space Day of China on Monday 24 April.

Being a major agricultural country, China is transforming its agriculture with the help of its space undertakings to enhance productivity and increase farmers' income.

More than 100,000 agricultural machines have been installed with the BDS automatic driving system, covering agricultural production processes such as deep plowing, rice transplanting, sowing, plant protection, harvesting, straw treatment, and drying.

Over 240 main grain varieties and over 400 vegetable, fruit, grass, and flower varieties have won final approvals for mass planting following more than 3,000 space breeding experiments.

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Scientists in China's tea hub claim to have brewed cheaper & healthier alternative protein

[SCMP, 24-04-2023] A new type of alternative protein produced from tea leaves that is cheaper and healthier than current plant-based proteins made from sources such as soybean could soon become available to consumers.

A team of scientists from Fuzhou University in China's southern Fujian province – one of the country's biggest tea-growing areas – claims to have developed a solution to extract protein from green tea residue.

The research is significant because it has the potential to diversify the alternative protein market, which widely uses soy or wheat as sources of proteins, for which Asia relies heavily on western imports. It is also more environmentally sustainable and economic as it elevates the value of millions of tonnes of tea waste that the world generates each year, according to the researcher.

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World Bank approves loan to China for agricultural, rural development

[Xinhua, 29-04-2023] The World Bank has approved a loan of 345 million U.S. dollars to enhance the development of green agriculture and rural areas in central China's Hubei and Hunan provinces.

The loan, in conjunction with government funds, will be used to reduce greenhouse gas emissions from crop and livestock farming, increase soil carbon sinks, improve biodiversity protection and restoration of agricultural ecosystems, and support local governments to integrate environmental and decarbonization goals in rural revitalization plans and investment projects, according to the office.

Work will be done in multiple fields, such as providing farmers and members of cooperatives with training and agricultural extension services, encouraging farmers and food processors to adopt climate-intelligent agricultural technologies and good agricultural practices, optimizing rural sewage and garbage treatment services, and introducing standards and methods related to green agriculture and rural development.

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Trade and Business

China's Jan-Feb soybean imports jump 16% on year

[Reuters, 06-03-2023] China imported 16.17 million tonnes of soybeans in January and February, customs data showed, up 16.1% on the same period a year ago, as buyers stocked up amid tight supply.

The jump in arrivals came after lower imports through much of 2022, though imports had already surged in December.

Large arrivals come as Chinese demand for meat and therefore the animal feed ingredient, soymeal, is expected to rise this year after Beijing abandoned strict zero-COVID measures in late 2022.

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China to buy more homegrown soybeans for reserves

[Reuters, 16-03-2022] China will step up buying of domestic soybeans by state reserves to encourage farmers to keep planting the crop, the agriculture ministry said, as Beijing continues to push for greater self-sufficiency in oilseed.

But after boosting planting by 22% last year, farmers struggled to sell their crop, which is priced higher than genetically modified imported soybeans and predominantly sold for food use.

China will guide its state stockpiler to plan new purchases of domestically produced soybeans in the producing regions of Heilongjiang province and Inner Mongolia, the Ministry of Agriculture and Rural Affairs said in a statement.

The stockpiler should "increase the intensity of purchase and storage, release positive signals, and make use of the role of market guidance" it said.

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China's pig farms battle new surge in African swine fever

[Reuters, 15-03-2023] A surge in African swine fever infections in China is set to reduce hog output later this year, farm managers and analysts said this week, pushing up prices in the world's top pork consumer as demand recovers.

The incurable disease has plagued China for years, with an initial wave during 2018 and 2019 killing millions of pigs and leading to a dramatic decline in meat output that roiled global markets.

Chinese farms have significantly improved hygiene and procedures since then to reduce the impact of the virus, but it still circulates constantly, often spiking in winter.

Infections this year began to surge relatively late in the season, around the Lunar New Year holiday in January, when millions of people travelled after China had relaxed its COVID curbs, said three managers at pig farming companies and analysts.

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China's hog production remains stable, resilient

[17-03-2023] China's hog production capacity and prices remain stable and resilient with no particular impact from African swine fever, thanks to ramped up efforts already in place to secure safe manufacturing and supply, major pork producers and an industry group told the Global Times.

The remarks were made as African swine fever came under the spotlight after some foreign media reports said it would have a big impact on production and prices.

A surge in African swine fever infections in China is set to reduce hog output later this year, Reuters reported, citing farm managers and analysts, indicating that hog prices will be pushed up as demand recovers.

The Reuters report, citing a report released by Huachuang Securities, said that the current swine fever infection area in the northern production area of China may be nearing 50 percent.

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China's Africa ties: why food is the new focus

[SCMP, 19-03-2023] China is importing more food products such as avocados, cashews, sesame seeds and chilli peppers from Africa, as agriculture emerges as the new focus of Beijing's engagement with the continent.

In the first two months of this year, Shanghai ports handled more than 40,000 tonnes of African agricultural products worth more than US\$100 million, according to Shanghai Customs.

By March 3, a total of 1,845 tonnes of African sesame had been imported through Shanghai's Waigaoqiao Port – 4.3 times more than in the same period last year, official data showed.

Africa produces about 65 per cent of the world's sesame, and Chinese officials say African countries including Mali, Togo, Mozambique, Niger, Tanzania, Ethiopia and Uganda account for 90 per cent of China's imports of the product.

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China, ASEAN aim for deepened agricultural cooperation

[ECNS, 14-04-2023] Whether it be durian from Thailand, bananas from the Philippines, passion fruit from Vietnam, longan from Cambodia or coffee from Malaysia, more and more

agricultural products from ASEAN countries are being well-received by Chinese households, thanks to better China-ASEAN cooperation in agriculture.

China's agricultural investment in ASEAN countries accounts for 40 percent of its total overseas investment in the sector. The trade volume of agricultural products between China and ASEAN reached \$61 billion in 2022, topping other countries and regions worldwide, according to Sui Pengfei, director-general of the international cooperation department under China's Ministry of Agriculture and Rural Affairs.

China's General Administration of Customs said nearly 1,500 kinds of agricultural and food products from ASEAN have been exported to China. High-quality agricultural varieties and technologies from China have also boosted the development of agricultural industries in ASEAN countries.

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