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Policies

China mulls new legislation to safeguard food security

[Xinhua, 26-06-2023] Chinese lawmakers Monday 26 June started deliberating a draft food security law to enhance China's capacity for forestalling and fending off food security risks.

The draft, consisting of 11 chapters and 69 articles, focuses on issues vital to China's foundation for food security, such as cultivated land protection, grain production, and grain reserves.

Recognizing the importance of arable land protection, the draft provides that redlines to protect farmland, permanent basic cropland, ecosystems, and urban development boundaries, shall be drawn and held.

On the grain production front, the draft emphasizes the establishment of a national agriculture germplasm bank and a seed reserve system.

Another vital aspect of the draft is improving the emergency grain supply capacity in the country. The draft stipulates that the state shall establish a reporting system for unusual volatility in the grain market and asks for prompt responses to disruptions.

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China unveils first modern protected agriculture development plan

[Xinhua, 16-06-2023] China has rolled out its first plan to develop modern protected agriculture, designating four primary tasks for the industry in the 2023-2030 period.

The strategy, jointly issued by the Ministry of Agriculture and Rural Affairs and three other government bodies, indicates that modern protected cropping should be energy-efficient and suitable for machinery operations, and animal husbandry will be based on efficient and intensive development. The fishery industry will focus mainly on ecological aquaculture, and the modern logistics facilities will emphasize the storage, preservation, and drying of agricultural products.

The country will strengthen its policy support and guide social capital to actively invest in developing modern protected agriculture through measures including investment subsidies and special bonds.

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China ramping up efforts to protect arable land and ensure food security

[Xinhua, 25-06-2023] China has seen steady improvement in arable land protection and ensured food security with cranked-up measures adopted in recent years, Minister of Natural Resources Wang Guanghua told Xinhua during an interview on 25 June on the National Day to protect public land.

Since 2012, the country has consistently kept its farmland area above the red line of 1.8 billion mu (about 120 million hectares), while the trend of a decline in the total arable land has been "initially curbed," with a net increase of arable land achieved for two consecutive years, according to the official.

For the country to achieve further progress in arable land protection, "the pressure remains high." The natural resources minister explained that the demand for land resources will continue to grow in the future, citing factors such as strong demand for land in China's future industrialization and urbanization process.

According to the ministry, it will strictly prohibit illegal occupation and unauthorized adjustment of permanent basic farmland as well as drawing pay in advance in the land use in new urban constructions.

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China bans ‘one-size-fits-all’ approach to farmland reclamation amid food security drive

[SCMP, 18-06-2023] China’s top land use regulator has warned local authorities against blunt efforts to reassign land for crops amid a national push for food security.

China’s total arable land has decreased amid rapid industrialisation and urbanisation in recent decades, and local governments are now under growing pressure to guarantee a certain acreage for crop cultivation.

In a directive last week, the Ministry of Natural Resources said local governments were “strictly banned” from applying “one-size-fit-all” measures to land use, including bulldozing orchards, nurseries and ponds.

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Mislabeled arable land addressed in notice

[China daily, 26-06-2023] China's top natural resources authority released a notice recently banning lower-level governments from improperly labeling arable land just to make their records look good.

Through 2035, the country aims to maintain 124 million hectares of arable land to guarantee its food security, according to the central government.

The campaign requires protecting the red lines of arable land, and cracking down on the illegal occupation of it and on damage to the environment. Strict control of new urban construction is also required.

According to the national land survey, China lost 7.5 million hectares of arable land between 2009 and 2019.

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China issues first safety certificate for plant gene editing

[GT, 05-05-2023] China's first safety certificate for plant gene editing has been issued by the Ministry of Agriculture and Rural Affairs (MOA) recently, approving that gene editing in China has entered the fast lane for the sector's development and industrialization, which will further guarantee food security.

High oleic acid soybean by Shandong BellaGen Biotechnology Co received the gene editing safety certificate, valid for five years until April 2028, read a document issued by the MOA.

BellaGen is the first company in China to initiate industrial-scale plant gene editing.

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Authorities must keep up the fight against counterfeit seeds

[SCMP, 07-05-2023] Seeds have grown into a big problem for China as counterfeits continue circulating in the mainland agriculture market despite high-level efforts to stop the trade. The government, industry and researchers need to stay focused on an issue that is only deepening concerns about long-term food security.

Low-quality and counterfeit seeds now dominate the mainland market, which faces huge challenges because law enforcers and farmers alike often struggle to tell real from fake.

Market chaos is reflected in the fact that only about 100 of the more than 7,300 crop seed breeders in China are listed as capable of doing independent research and development, according to the state-owned magazine China Newsweek. Mainland authorities started prioritising a fight against seed counterfeiters in 2021 with a “market clean-up” and “seed industry revitalisation plan”. The Ministry of Agriculture and Rural Affairs said more than 800 crop seeds registered with authorities have since been cancelled for being copies of popular plant breeds.

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Policy support set to boost consumption

[China daily, 08-05-2023] China will step up its policy support to increase consumer spending and unleash the country's purchasing potential, a key force that propels the nation's economic recovery and underpins its endeavors toward modernization and prosperity, experts said.

Policymakers are also expected to deepen reforms to boost household incomes and bridge the wealth gap between urban and rural residents, as President Xi Jinping has emphasized the importance of expanding the country's consumption demand supported by stable income growth.

"The (central) government should increase fiscal support through greater tax relief, improve social security coverage and more targeted transfer payments to effectively bridge urban-rural income gaps, improve the country's overall social welfare program and substantially raise the income of low-income families," expert said.

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Science, Technology and Environment

UK-China engagement essential for global food and agriculture challenges

[IDS, 09-05-2023] Relations with China have entered a precarious new era, defined in the UK by contestation and competition, and protecting security and managing risks.

To support a new agenda of engaging with China on food and agriculture several steps could be taken:

- Prioritise International Science Partnerships Fund (ISPF) collaboration with China with a specific theme of food and agriculture research and development for people, nature and climate.
- Elaborate a funded action plan for the MOU between DEFRA and China's Ministry of Agriculture and Rural Affairs (MARA) agreed in 2022 to work on green agricultural development.
- Support the Sustainable Agriculture Innovation Network (SAIN) – a well recognised platform within agricultural policy networks in China – with a refreshed mandate to coordinate knowledge-sharing, dialogue and pilot projects on low-carbon agriculture and sustainable food systems.
- Establish funds for networking and relationship building, such as the Biotechnology and Biological Sciences Research Council (BBSRC) China partnership fund, which could be extended to research collaboration in the food and agriculture space.

- As FCDO tracks China's engagements in third countries in the global south, it should look at opportunities to partner on food and agriculture technical cooperation guided by the priorities of the third country.

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Extreme rainfall could lead to 'big disaster' for rice yield in China

[New Scientist, 04-05-2023] Extreme rainfall made more intense and more frequent by climate change poses a major risk to China's food security, according to a new study which forecasts an 8 per cent fall in rice yields by the end of the century.

Studies have warned that increasingly severe droughts – driven by climate change – will cause a decline in yields over the coming decades, but little research has been done on the potential impact of extreme rainfall on the crop.

Heavy rain affects rice crops in two main ways. Firstly, excess water in paddy fields dilutes nitrogen levels in soils, leading to slower growth and lower yields. Meanwhile, torrential rain can damage the delicate flowers, disrupting the plant's grain production.

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China can be self-sufficient in maize production by 2030 with optimal crop management

[Nature, 06-05-2023] Population growth and economic development in China has increased the demand for food and animal feed, raising questions regarding China's future maize production self-sufficiency. Here, we address this challenge by combining data-driven projections with a machine learning method on data from 402 stations, with data from 87 field experiments across China. Current maize yield would be roughly doubled with the implementation of optimal planting density and management. In the 2030 s, we estimate a 52% yield improvement through dense planting and soil improvement under a high-end climate forcing Shared Socio-Economic Pathway (SSP585), compared with a historical climate trend. Based on our results, yield gains from soil improvement outweigh the adverse effects of climate change. This implies that China can be self-sufficient in maize by using current cropping areas. Our results challenge the view of yield stagnation in most global areas and provide an example of how food security can be achieved with optimal crop-soil management under future climate change scenarios.

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World's largest wild rice repository completed in Sanya

[China daily, 12-05-2023] Construction has finished on the world's largest repository for gene resources of wild rice varieties at Sanya in tropical Hainan province, the contractor said.

The repository will provide a boon to the global sharing of rice germ plasm resources, which are crucial to developing stronger crop varieties with higher yields, experts said.

The facility has already gathered 13,000 germ plasm samples from 21 wild rice varieties worldwide, including three found in China, Hainan Daily has reported.

The National Wild Rice Germ Plasm Resources Garden is in line with China's efforts to step up sharing the genetic details of food species and seek breakthroughs in germ plasm, to better feed one-fifth of the world's population.

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Chinese researchers develop tissue-like cultured fish fillets

[Xinhua, 22-05-2023] A team of Chinese researchers has been seeking to develop tissue-like cultured fish fillets for human consumption, combining fish muscle fibers and adipocytes with 3D-printed gel.

The scientists first isolated muscle stem cells and adipose stem cells from the large yellow croaker, a warm-temperate migratory fish known for its delicious flavor and richness in nutrients.

They then promoted the myogenic differentiation of piscine satellite cells (PSCs) by regulating two related signaling pathways.

In addition, a 3D scaffold, the supporting materials for fish cell adhesion and growth, was constructed by gelatin-based gel mixed with PSCs. After proliferation and differentiation, the muscle scaffold was filled with cultured fish adipocytes until the tissue-like fish fillets were formed.

The process of producing the fillets took 17 days.

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China's agriculture sector witnesses greener development

[Xinhua, 07-06-2023] China's agriculture sector has continuously deepened the green transformation and seen higher-level green development between 2021 and 2022, according to a report released by the Chinese Academy of Agricultural Sciences (CAAS) and China Agricultural Green Development Research Society (CAGDRS).

The report said the country modernized 505 large and medium-sized irrigation districts and restored and improved irrigation areas of 33.7 million mu (about 2.25 million hectares) in 2022, significantly enhancing the production capacity of grain and important agricultural products.

By the end of 2022, China had built 102 bases for organic agricultural products and 748 standardized production bases for green food raw materials, with a total area of over 168 million mu.

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Cropland of high standard gaining ground

[China daily, 28-06-2023] China is getting closer to its goal of developing all permanent basic cropland into high-standard cropland, which will be expanded to further benefit the agricultural sector.

The nation boasts about 128 million hectares of farmland, of which 103 million are permanent basic cropland.

In 2014, the central authorities released the General Principles for High-quality Cropland Construction, and amended them last year. The amended version states that China will have 80 million hectares of such land by 2030.

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Scientific advancement transforms China's saline-alkali land

[China daily, 16-06-2023] Farming on saline and alkaline soil is widely recognized as a formidable challenge, resulting in significantly lower crop yields. China has about 1.5 billion mu (100 million hectares) of saline-alkali land, of which around 500 million mu is available for utilization.

As China focuses on promoting agricultural modernization, regions across the country have been making great efforts to utilize saline-alkali land with innovative solutions ranging from the breeding of saline-alkali tolerant crop varieties to soil fertilizing.

Empowerment through science and technology has been key to China's miracle in reclaiming and managing saline-alkali land, China's experience can provide valuable insights for other countries.

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New technologies boost farming in Heilongjiang

[China daily, 28-06-2023] With smart transplanters, fertilizer spraying drones and intelligent management systems, Heilongjiang has entered a new era of technological development and agricultural achievement, providing a blueprint for the future of agriculture in China.

Heilongjiang has been the country's top grain producer for 13 consecutive years with a growing area of over 13 million hectares this year. Last year, it produced 77.63 billion kilograms of grain, accounting for 11.3 percent of the country's total.

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China defends hillside rice farming as country pushes to guarantee food security

[SCMP, 25-06-2023] Chinese agricultural authorities have defended controversial research on growing rice in mountainous areas, saying the country must make full use of hillside land to ensure food security.

In an article in its official newspaper Farmers' Daily, the Ministry of Agriculture and Rural Affairs said hillside cultivation of rice, China's most important staple food, was worth exploring despite lower yields and higher costs.

China has embarked on a national campaign to ensure food security, in part by creating new arable land. In some cases, local governments have converted forests and parkland into cropland to meet the target.

But critics say that using such land to grow crops risks degrading the soil.

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China restores ecology via sci-tech means

[China daily, 13-06-2023] China has embarked on a new journey of building a modern socialist country in all respects. Promoting a harmonious coexistence between man and nature is a distinctive feature of Chinese modernization.

With the sci-tech development, more advanced technologies will be applied to the practices of ecological restoration and environmental protection, which is expected to further improve the governance efficiency and provide assistance for building a modern ecological environment governance system.

Using the digital technology to empower ecological governance is becoming a crucial method for the government to improve its governance capacity of ecological environment.

China is also actively exploring ways to understand the value of ecological products. New models of ecological industries are developing rapidly, such as urban modern agriculture, leisure agriculture, ecotourism and boutique homestays. The scale of green industries continues to grow.

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Annual summer sea fishing ban begins in China

[CGTN, 05-05-2023] The Ministry of Agriculture and Rural Affairs of China announced the annual summer fishing ban in China has begun since May 1.

It covers the Bohai Sea, the Yellow Sea, the East China Sea and the waters north of 12 degrees north latitude in the South China Sea (including the Beibu Gulf in south China).

On the same day, the ministry also launched a law-enforcement operation in conjunction with China Coast Guard and the Ministry of Public Security in waters off the coast of Shandong and Fujian provinces, and Guangxi Zhuang Autonomous Region, aiming to maintain the order of the finishing ban and to protect the marine fishery resources.

This year's fishing ban will last for three to four months depending on certain areas and fishing nets used.

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Trade and Business

China's food industry sees steady growth in 2022

[Xinhua, 29-05-2023] China's food industry registered steady growth in 2022 and is expected to maintain growth momentum this year, according to an industrial association.

Major food companies with an annual turnover of at least 20 million yuan (about 2.8 million U.S. dollars) reported revenues of 9.8 trillion yuan last year, marking a yearly increase of 5.6 percent, said Zhang Chonghe, head of the China National Light Industry Council.

Their profit went up 9.6 percent year on year to 681.5 billion yuan, Zhang said.

Despite the optimism, Zhang said the sector faces multiple challenges including grim international food security and shrinking profit margins, and called for greater efforts to develop industrial clusters to fuel future development.

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Ningxia wine making a splash

[China daily, 19-06-2023] There's something about the soil in the eastern foothills of the Helan Mountains in the Ningxia Hui autonomous region. The fine silt is so dry that it retains the blazing heat that beats down on it for 3,000 hours each year. Its qualities have led the autonomous region to begin to eke out name for itself in the world of wine.

The wine industry in Ningxia, born in the 1980s with the opening of the government-owned Xixia King winery, trod a slow development path. The central government granted the region its own geographical indication designation in 2003. Such indications are given to products with a specific location origin and qualities that are linked to that origin.

Since then, the Ningxia wine industry has risen to become China's eighth most valuable geographic indication brand, valued at 32 billion yuan (\$4.48 billion), producing 138 million bottles annually, exporting to more than 40 countries worldwide and winning numerous international awards and accolades, such as at the Decanter World Wine Awards and Concours Mondial de Bruxelles.

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Fifth China International Tea Expo Concludes

[MAR, 25-05-2023] The Fifth China International Tea Expo, a five-day event, concluded in Hangzhou, Zhejiang Province, on May 24. This year's expo was a real hit as it saw a boom in exhibitions and sales at both online and brick-and-mortar operations. As of May 23, 116.13

tons of tea have been sold on-site, reaching 144 million yuan in terms of sales revenue. A total of 9,462 orders have been placed, amounting to 7,719 tons of sales volume and 3.166 billion yuan of revenue.

Nearly 900 Chinese and foreign tea companies participated in this year's expo. More than 10,000 tea products were displayed, attracting over 4,200 professional buyers and 121,000 visitors. During the expo, over 80 brand promotions were also held, mainly promoting the first group of eight premium tea brands developed by MARA, and 50 best-selling online products and 100 products in brick-and-mortar stores.

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China sees critical grains cut into copious cotton yields

[SCMP, 29-06-2023] Cotton planting acreage in China, the world's top grower of the plant, has dropped significantly in the span of a year, amid a US-led boycott and Beijing's aggressive push to boost national grain production.

The decline was mainly driven by a shift to grain sowing, as Beijing has ramped up efforts in recent years to increase grain production amid concerns over food security, the China National Cotton Information Centre said in a post, citing a nationwide survey last month.

It was also a result of the global apparel industry's boycott of cotton from the Xinjiang Uygur autonomous region, China's top producer, for alleged forced labour, according to a professor of agriculture.

Zheng Fengtian, an agriculture professor at Renmin University, said that ensuring self-reliance in food is higher on Beijing's agenda, to the point of being deemed a national security issue, and any unmet cotton demand may be filled by increased imports.

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Russia may export more wheat, barley to China amid push for land grain corridor

[GT, 12-05-2023] Russia may export more agricultural products such as wheat and barley to China as Russia is pushing for the construction of a land grain corridor between the two countries, businesses and experts said.

Agricultural cooperation between China and Russia has seen relatively fast growth in recent years. Russia exported \$7 billion worth of agricultural products to China last year, up 41.4 percent year-on-year, according to media reports.

Trade between China and Russia jumped 41.3 percent year-on-year in the first four months to \$73.15 billion, and analysts said the trade figure is well on track to meet the goal of crossing the \$200 billion mark ahead of schedule.

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China will create fast track trade channel for agricultural and food products from France

[GT, 12-05-2023] Chinese customs have approved the import of qualified French pork and vowed to jointly create a fast track trade channel for French agricultural and food imports, as the two countries are moving swiftly to strengthen bilateral economic and trade cooperation following recent high-level meetings.

The General Administration of Customs (GAC) said it will "closely work with French counterparts" to build a "French farm to Chinese dining table" whole-chain rapid coordination

mechanism to address specific issues related to the imports of French agricultural and food products.

Mechanisms will be strengthened and personnel exchanges promoted through regular high-level meetings on animal and plant quarantine and food safety, and a fast track channel for bilateral agricultural and food products will be created, while maintaining national biosecurity.

The two nations will strengthen cooperation in international organizations, and make contributions to the establishment of global standards for preventing and controlling animal and plant diseases and preventing the cross-border spread of diseases, the GAC said.

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New Zealand company taps into the grass-fed meat market in China

[China daily, 29-06-2023] When New Zealand Prime Minister Chris Hipkins led an official delegation to China in late June, it heralded the opening of a new chapter in bilateral relations between the two countries.

China is the largest importer of New Zealand beef, lamb and mutton. Boasting a natural environment blessed with fertile soil, fresh air and abundant rainfall throughout the year, New Zealand's lush pastures allow farmers to raise animals in expansive grazing fields. This natural grass-fed method ensures consistent safety, high quality, and a richly nutritional taste.

Official data shows China's meat imports in the first quarter of 2023 totaled 1.95 million metric tons, which is a 17.2 percent year-on-year increase. Chinese consumers are becoming more cognizant of health and view beef as a higher-quality meat choice, but due to price considerations, its purchase proportion remains relatively low.

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Fruit day boosts South African apple and pear popularity in China

[ProduceReport, 29-06-2023] With the continuous strong demand from Chinese consumers, export volumes of South African pome fruit to China have been increasing consistently over the years.

South African apples and pears are favored on both the Chinese and other international markets owing to their unwavering quality, exceptional taste and strong supply. The distinctive climatic and geographical conditions in South Africa contribute to the remarkable appearance, texture and flavor of the country's apples. Through improvements in cultivation techniques, ongoing research and development of new varieties, and the implementation of global cold chain and packaging technologies, an expanding assortment of South African apples and pears, encompassing diverse cultivars, has successfully reached the tastebuds of Chinese consumers.

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More imported fruits hit Chinese market

[People's daily, 29-06-2023] More and more foreign fruits are entering the Chinese market, satisfying consumers' diverse tastes, thanks to the implementation of the Regional Comprehensive Economic Partnership (RCEP) agreement and the introduction of policies such as low tariffs, and rapid inspection and quarantine.

China tops the world in fruit production and consumption. It is the world's largest kiwifruit market. Nearly 70 percent of the world's watermelons and half of apples are consumed in China.

Among all imported fruits, durians are highly popular among Chinese consumers. Durians topped the list of fruits imported by China in 2022, reaching \$4.03 billion, with a total import volume of 825,000 tonnes, nearly double that of 2014. Customs data shows that China's imports of fresh durians grew at a compounded annual rate of 17 percent between 2015 and 2022.

Cold-chain technologies ensure the freshness of imported fruits. Not long ago, a chartered plane equipped with cold-chain facilities carrying 18 tonnes of fresh fruits from Thailand arrived at the Ningbo Lishe International Airport in Ningbo, east China's Zhejiang Province.

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