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## Policies

### **China's top legislature adopts revised agricultural products law**

[China daily, 02-09-2022] Chinese lawmakers on voted to adopt a revised Law on Quality and Safety of Agricultural Products.

The revisions were done to enhance the law connection with the Food Safety Law, so that all the links related to food safety, including production, processing and consumption, could be effectively supervised and regulated in accordance with the law.

The revised law includes stipulations ensuring that the country's quality and safety standards for agricultural products are fully implemented. New quality and safety requirements regarding the transportation and storing of agricultural products were also added.

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### **China legislators to revise Animal Husbandry Law**

[China daily, 24-10-2022] China will improve disease monitoring of livestock and poultry to prevent public health risks by revising the Animal Husbandry Law, a senior legislator told a news conference on 24 October.

Along with intensifying monitoring, the draft amendment will also boost the harmless processing and resource utilization of livestock and poultry to improve sustainable development.

The draft revision requires governments at the provincial level to shoulder the responsibility of the supply, with the establishment of a unified monitoring and warning system in the husbandry product market.

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### **Lawmakers reviewing report on implementation of law to promote rural vitalization**

[Xinhua, 28-10-2022] Chinese lawmakers are reviewing a report that assesses the implementation of a law to promote rural vitalization.

The implementation of the law has helped nurture rural industries, promote rural affluence, and better conserve the rural ecological environment, according to the report.

Regarding the challenges to rural vitalization, the report calls for efforts to guarantee adequate food supply, increase farmers' incomes, and promote green agriculture.

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### **Country takes great strides in food security**

[China daily, 15-10-2022] In 2013, China adopted a national strategy for food security, characterized by self-sufficiency based on domestic grain production, production capacity, moderate imports and technological support. China has also established a strict farmland protection system and adopted a policy to ensure the sustainable use of farmlands, innovative application of agricultural technology, and self-reliance in seeds.

In the new era, China has been making full use of high-tech to increase food production and safeguard food security. Cutting-edge technologies such as biotechnology, gene editing, the Internet of Things, big data and artificial intelligence are being widely used in agriculture, and intelligent farming is becoming the most effective way of safeguarding food security.

Directly related to the yield, quality, benefit and competitiveness of agricultural products, seeds are the key production factor in modern agriculture, and have a decisive impact on food safety and bio-security.

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### **China releases report on food, nutrition**

[Xinhua, 18-09-2022] The Chinese Academy of Agricultural Sciences (CAAS) released a report on China's food and nutrition development.

The report summed up the trends of China's food and nutrition in recent decades, and presented a series of problems and suggestions.

Since the reform and opening-up, China's food production and supply have increased significantly, with its annual per capita grain supply reaching 600 kilograms, according to the report.

The report also pointed out various problems with the food and nutrition of Chinese residents.

The unreasonable dietary structure of Chinese residents is a prominent problem. Excessive intake of oil, salt and sugar has brought health risks. In addition, the excessive processing of food has led to a loss of nutrition.

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### **China to cut soybean meal in livestock feed to ensure food security**

[GT, 20-09-2022] Major Chinese hog farmers and feedstock producers explained their efforts to cut down soybean meal use in a bid to lower the country's dependence on the crop and ensure the nation's food security.

Muyuan Foods Co, a leading hog and pork producer, said the company saved 1.3 million tons of soybean meal compared with the average level by using just 6.9 percent of soybean meal in its compound feed for pig breeding in 2021.

New Hope Liuhe, China's major feedstock producer, said it used just 10.7 percent soybean meal in its feed products in 2021, about 4.6 percentage points lower than the industry average, equivalent to reducing soybean meal consumption by 1.3 million tons.

China has been highly reliant on soybean imports, driven up by the demand for livestock feed, which makes it a key agricultural product for China's food security, experts said.

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### **China promotes conservation of globally important agricultural heritage systems**

[People's daily, 09-09-2022] In recent years, China has advanced the conservation of important agricultural heritage sites, while various localities around the country have strived to push forward rural vitalization in a comprehensive way through the application of agricultural heritage.

In May this year, the FAO designated three more sites in China as GIAHS, bringing the total number of GIAHS in the country to 18, the highest in the world.

These 18 GIAHS in China cover agriculture, forestry, animal husbandry and fisheries, as well as mountain, river, forest, farmland, lake, grassland and desert ecosystems, contributing Chinese wisdom to the identification, conservation and utilization of agricultural heritage systems in the world.

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### **Grain loss reduction measures to safeguard food security**

[Xinhua, 15-10-2022] It is harvest time and a soybean harvester is working in a field in northeast China's Heilongjiang Province. Different from previous years, the harvester is now equipped with fenders and protective nets to prevent the soybeans from falling onto the ground.

China has made substantial progress in curbing loss and waste in food production and consumption during recent years. Heilongjiang, known as China's "grain barn," has formulated and implemented technical specifications for loss reduction, strengthened loss reduction training, accelerated the updating of machines and tools, and carried out loss rate detection for this autumn harvest.

At the grain storage site, high-definition visual probes and sensors are equipped to monitor and control the temperature, humidity and insect pests in real time. Data is synchronously transmitted to the smart control system platform, so that timely warnings can be issued in case of abnormal situations to alert personnel to take appropriate measures.

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### **China has stronger capability of ensuring food security**

[GOV.CN, 17-10-2022] China has been improving its capability of ensuring food security over the past decade, with higher annual grain output and stable market operation, an official said on Oct 17.

China's grain output has stayed above 650 million tons for seven solid years. In 2021, the figure hit a new high of 682.85 million tons.

As evidence of the capability of ensuring food security, China's farmland totals 128 million hectares, its standard warehouses boast 700 million tons of grain storage capacity, and the number of emergency-responding grain processing enterprises reaches 6,000.

While global food markets were unstable in recent years, China's market has kept sufficient supply and stable operation, effectively meeting people's needs and contributing to healthy economic development and social stability, adding that China will continue to be well-positioned for ensuring food security.

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### **Agricultural focus urged to fuel next growth stages**

[China daily, 22-10-2022] Agricultural and rural areas must not be left behind in China's modernization, and comprehensively promoting rural vitalization provides strategic support for development, experts said.

China's total area of farmland should not fall below 120 million hectares and the country is expected to gradually develop all permanent basic cropland into high-standard cropland, the report said. The nation's food supply should remain firmly in its own hands, it added.

Cheng Guoqiang, a professor with the School of Agricultural Economics and Rural Development, Renmin University of China, said ensuring food security is the top priority of comprehensively promoting rural vitalization.

To increase agricultural production capacity, stringent measures should be taken to protect arable land and ensure that the land is prioritized for growing grain, Cheng said.

The fertile black soil in Northeast China holds great potential for increasing grain production and is important in conserving arable land, according to experts.

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### **National efforts to vitalize countryside get added boost**

[China daily, 26-10-2022] China will continue to stress the vitalization and development of rural areas, as it is of great importance to national development.

According to the report delivered by Xi Jinping, general secretary of the Communist Party of China Central Committee, at the opening session of the 20th National Congress of the Communist Party of China, rural vitalization work will continue in order to prioritize rural development, consolidate ongoing poverty alleviation achievements and shore up national agricultural capabilities.

The report said that developing rural areas remains the most challenging, arduous task in the central government's aim of achieving the national goal of a modern socialist country. Doing so requires that the government move faster to vitalize businesses, talent, culture, ecosystems and organizations in rural areas.

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## **Science, Technology and Environment**

### **China to accelerate building carbon emission calculation system**

[Xinhua, 27-10-2022] China's Ministry of Ecology and Environment said 27 October that it would expedite the construction of a unified and standardized national system to calculate carbon emissions.

Focusing on sectors, companies and key products in the calculation, the ministry and relevant departments will also formulate a list of greenhouse gases.

Amid China's green shift, the national carbon trading market, which opened in July last year, had operated in an orderly manner, with structure and rules established and expectations met.

The ministry will ramp up data quality management, strengthen the functions of the market, and optimize the country's certified emissions reduction mechanism to help the market thrive.

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### **Sci-tech experts boost output, vitality in tea-growing areas**

[Xinhua, 15-09-2022] The mechanism of sending technical experts to rural areas was initiated in 1999 in the city of Nanping in Fujian and was later promoted nationwide. It helps popularize agricultural science and technology, spearhead sci-tech innovation and entrepreneurship, and lead villages out of poverty while promoting rural vitalization.

Over the past years, hundreds of thousands of sci-tech experts have been sent to China's countryside to support agriculture. In Fujian alone, over 64,000 sci-tech expert assignments have been completed across the province.

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### **China's agricultural sci-tech progress supports food security**

[GT, 07-10-2022] Over the past decade, the Chinese Academy of Agricultural Sciences (CAAS) has made a series of agricultural technology innovations and achievements, providing strong support for the country's food safety, including:

- Discovered and cloned the genes that hindered the utilization of rice heterosis for the first time.
- Discovered key genes for the formation of the bitter taste in cucumber fruit.
- Made breakthroughs in crop pest control and prevention.
- Made major technological upgrades in the monitoring and management of cultivated land, soil fertility and soil improvement.
- Developed a series of green agricultural production technologies and products, reducing use of pesticides by more than 20 percent and chemical fertilizers by more than 10 percent
- Clarified the biological characteristics, genetic evolution laws and public health risks of the H7N9, H5N1 and H5N8 viruses
- Cultivated new varieties of high-quality crops, rapeseed, vegetables, poultry and beef cattle.

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### **Chinese, foreign experts discuss food security at wheat congress**

[Xinhua, 14-09-2022] More than 900 experts from 67 countries came together at the 2nd International Wheat Congress (IWC) in Beijing to exchange ideas on how to improve the development of the wheat industry worldwide, calling for global cooperation on wheat science and technology innovation to ensure global food security.

Jointly hosted by the Chinese Academy of Agricultural Sciences (CAAS) and the Consultative Group on International Agricultural Research, the conference is focused on key issues of wheat research, such as increasing wheat yields, reducing environmental risks, new breeding technologies, optimized production systems, and improving the nutritional quality of wheat.

Experts agreed on the great importance of promoting the high-quality development of the wheat industry, especially bearing in mind the challenging international situation.

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### **New soybean yield record set in northeast China**

[Xinhua, 05-10-2022] A new national soybean yield record has been set in a high-yield soybean production competition in northeast China's Heilongjiang Province, which was assessed by an expert panel authorized by the Ministry of Agriculture and Rural Affairs.

According to the assessment results, the 854 Farm Co., Ltd. of the Beidahuang Group achieved 311.2 kg of soybean yield per mu (0.07 hectares) on a contiguous 100-mu field, taking first place in the provincial contest.

The farm planted "Kennong 34," a soybean variety developed by Heilongjiang Bayi Agricultural University.

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### **Chinese scientists accurately map pea genomes**

[Xinhua, 05-10-2022] Chinese scientists have accurately mapped the reference genome and pan-genome of peas, providing a reference for its evolution and cultivation, according to the Chinese Academy of Agricultural Sciences (CAAS).



A research team from the Institute of Crop Sciences under the CAAS sequenced ZW6, the main pea variety planted in China, and provided improved high-quality fine physical maps and annotations of the pea based on advanced sequencing technologies.

The study analyzed the evolutionary characteristics and population genetic structure of the pea genome, providing valuable resources and data support for revealing the origin and domestication of the pea, as well as its gene research, germplasm innovation and breeding improvement.

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## **How China's breadbasket province ensures grain output through new technologies**

[People's daily, 16-09-2022] Heilongjiang, a region known as China's "grain barn," accounts for more than 40 percent of the country's total soybean planting area.

The province's soybean output is estimated to hit 8.5 billion kg this year, about 1.3 billion kg more than last year.

The soybean research institute of the Heilongjiang Academy of Agricultural Sciences has conducted tests on over 20 new soybean varieties this year.

From seed breeding to the protection of black soil and the promotion of mechanical and digital farming, a great deal of innovative science and technology has been applied in Heilongjiang to promote the rapid development of modern agriculture.

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## **China Agriculture Press publishes cage-free guidebook**

[Feedstuffs, 22-09-2022] China Agriculture Press released a new guidebook on commercial-scale cage-free egg production. The book, titled "Commercial Cage-Free Egg Production" was released at the country's annual China Egg Industry Summit. Its publication comes amid an upswing of interest in cage-free eggs from Chinese consumers, food companies and producers.

The guidebook covers air quality, ventilation control, bedding and behavior management, chick rearing, lighting, intestinal health, and other important elements of commercial cage-free production.

A study conducted last year by Chinese media outlet FTA found that 75% of Chinese consumers say they are more likely to patronize brands that use cage-free eggs, and 67% think food companies should commit to sourcing only cage-free eggs.

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## **Modernization of villages in China: Intelligent agriculture with 5G**

[CGTN, 22-09-2022] By June 2022, China's gigabit optical network had the capacity to cover more than 400 million households, and 1.85 million 5G base stations had been put into operation, enabling "5G access to every county and village," according to the country's Ministry of Industry and Information Technology (MIIT).

China has also vowed to increase the deployment of facilities concerning 5G, artificial intelligence and the Internet of Things in villages to achieve in-depth integration of digital technology and agriculture.

With the ever active use and broader coverage of 5G, new technologies, products and applications related to intelligent agriculture in China have been rapidly upgraded.

5G infrastructure and related technologies will be the catalyst in accelerating the development of digital villages in China, according to a report published in August by Beijing-based think tank, China Center for International Economic Exchanges (CCIEE).

The development of digital villages will be the next key area for ensuring food security and the hub for international collaboration, the report noted.

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### **Conservational tillage area exceeds 1.7 million hectares in NE China**

[CGTN, 26-09-2022] The conservational tillage area in northeast China's Heilongjiang Province has exceeded 1.7 million hectares this year, further protecting the rare black soil in the area, according to the provincial department of agriculture and rural affairs.

The typical black soil area in Heilongjiang Province, known as China's "grain barn," is approximately 10.4 million hectares, accounting for 56.1 percent of northeast China's total black soil area.

Heilongjiang supports farmers by equipping them with no-tillage planters through an agricultural machinery purchase subsidy policy. The number of no-tillage planters in the province has climbed to 34,000. Farmers also receive subsidies to motivate them to practice conservational tillage.

The practice of straw recycling and using other technologies in Heilongjiang have been recommended as solutions to promote organic fertilizers that protect black soil in China.

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### **Action plan looks to safeguard Yellow River's environment**

[GOV.CN, 28-09-2022] The latest national action plan for protecting the Yellow River has laid out a host of measures on pollution control and prevention, ecological restoration, the protection of biological diversity, and afforestation.

The policy document, jointly released by 12 central government departments this month, will help tackle some of the most pressing issues facing the Yellow River Basin area, including pollution from industries, urban areas, the agricultural sector, and water shortages.

The treatment of soil erosion will be prioritized in the middle reaches of the river, including steps to stop the inflow of sand into the river to alleviate the problem of sedimentation affecting the lower reaches.

To strengthen the protection of biodiversity in the region, the plan included measures for creating better habitats for wildlife and for building up monitoring networks for endangered species. The restoration of migration channels and habitats for fish stocks in the upper reaches of the river was also highlighted.

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## **Trade and Business**

### **China's agricultural sector expands 4.2% in first 9 months**

[GT, 29-10-2022] China's agricultural sector maintained a sound development momentum in the first three quarters of 2022, with the value-added output of the primary industry increasing 4.2 percent year-on-year to 5.48 trillion yuan (\$755 billion), laying a solid foundation for the improvement of people's well-being and the steady economic development, the Ministry of Agriculture and Rural Affairs said on Saturday 29 October.



The agricultural production showed good growth momentum, and a bumper harvest is expected this year. The total output of summer grain and early rice amounted to 351 billion jin (175.5 million tons), and nearly 90 percent of autumn grain has been harvested, according to a press release on the ministry's website.

In the first three quarters, the output of pork, beef, mutton and poultry posted stable increase, with a sufficient supply of vegetables, said the ministry. The output of pork increased 5.9 percent year-on-year to 41.5 million tons. At the end of September, the number of pigs registered was 443.94 million, up 1.4 percent year-on-year, it said.

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### **Autumn harvest to be better than expected**

[MARA, 08-10-2022] China is expecting another bumper autumn harvest this year, with grain harvesting in full swing across the country, according to the Ministry of Agriculture and Rural Affairs.

Based on the latest survey by the ministry, 33.6 million hectares of autumn grain crops have been harvested nationwide as of Oct 3, equal to 38.6 percent of the projected total and up by 2 percentage points from the same period last year.

Almost 70 percent of the autumn grain harvest has been completed in Southwest China, and in Northeast China more than 20 percent has been finished, the ministry said.

Technologies have played an increasingly important role in the country's agricultural development.

The ministry has sent expert teams to offer technical guidance to help with harvests and released guidelines for South China to help it combat the impact that drought and high temperatures have had on the growth of rice and corn.

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### **MARA ordered to act against swine fever**

[MARA, 26-10-2022] The Ministry of Agriculture and Rural Affairs said its general office has issued a notice asking authorities to enhance efforts to control African swine fever and other major swine-related diseases this autumn and winter.

The notice requires authorities to pay special attention to prevention and control as gradually falling temperatures heighten the risk of the spread of the diseases.

Authorities should make full efforts to vaccinate pigs, and continue strict monitoring, sterilization and quarantine measures to contain African swine fever. Companies and individuals in related businesses are also required to follow laws, regulations and technical norms, upgrade equipment and improve management to guard against infections.

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### **China to step up investment in rural infrastructure**

[Reuters, 25-10-2022] China will accelerate investment in rural infrastructure to improve its ability to ensure food supply while also stabilising the economy, according to a plan published by the agriculture ministry on 25 October.

The plan, backed by eight ministries and government agencies, comes amid slowing growth in the world's second-biggest economy, due to persistent COVID-19 curbs and a prolonged property slump.

The rural infrastructure plan will target renovation of irrigation systems, reinforcement of reservoirs, building modern greenhouses and fisheries as well as cold storage facilities.

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### **China Laoling deepens the condiment industry chain to promote rural revitalization**

[PR Newswire, 28-10-2022] Yang'an Town, Laoling City, Shandong Province, known as "the first seasoning city in China", has become the largest spice deep processing base and condiment distribution center in China after nearly 50 years of development, with the seasoning industry as the leading industry. At present, there are 267 processing enterprises, nearly 2/3 of the town's 50000 people are engaged in condiments and related industries.

At present, with the improvement of people's living standards, the condiment industry is developing towards the direction of branding, high-end, nutrition and health, and differentiation.

In order to make up for the lack of innovation and R&D capability of enterprises, all enterprises have actively established a public service platform for "production, teaching and research" cooperation with well-known universities and research institutes at home and abroad, and constantly improve the added value and quality of products.

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### **Chinese-owned agricultural giant Syngenta reports slower earnings growth**

[SCMP, 27-10-2022] Switzerland-based, Chinese-owned agrichemical and seed giant Syngenta Group's sales and core earnings growth eased during the third quarter, it said on 27 October ahead of a planned US\$10 billion flotation within the next few months.

Sales increased by 20 per cent to US\$7.9 billion in the three months ended September 30, slightly slower than the 24 per cent increase during the second quarter.

Earnings before interest, tax, depreciation and amortisation (EBITDA) increased by 24 per cent to US\$1 billion. In the second quarter earnings had increased by 39 per cent.

The company said it was seeing an "increasingly challenging macroeconomic environment" while the continued strengthening of the dollar also weighed.

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### **China still top market for farm exports**

[AAP, 06-09-2022] China remains Australia's most lucrative export market for farmers despite ongoing trade restrictions, while almost every state hit new records.

The latest insights from Rural Bank's agricultural trade report for 2021/2022 found Australia's agricultural exports hit a record high of \$67.5 billion, up 37 per cent from the previous year.

A lower Australian dollar, increased production and higher commodity prices all helped lift the value of exports by \$18.2b.

China was the largest growth market for agriculture exports and for the 12th consecutive year was Australia's most valuable market, worth \$13.5b.

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## **China remains largest importer of UK pigmeat**

[Agriland, 05-09-2022] Between January and June this year, more than half of the 108,294t of UK pigmeat exported to non-EU countries went to China, the Agriculture and Horticulture Development Board (AHDB) has said.

Based on the latest data from Her Majesty's Revenue and Customs (HMRC), the AHDB said pigmeat exports to China are at £88 million so far this year.

Following China is the Philippines, which the AHDB said has become the third-largest importer of pork from the UK.

Japan is becoming a valuable export market for the UK's red meat sector, with shipments of both pigmeat and beef significantly up on last year.

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