

Corn Seed China Monthly Report 202107

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Headline

On 1 July, MOA launched the 100 day campaign to fight against disasters and achieve a good harvest of autumn grain, which required local agricultural and rural departments to pay close attention to grain production, fully implement various key measures, strive to reduce production in severe disaster areas, ensure stable production in light disaster areas, and increase production in other areas, so as to achieve a good harvest of autumn grain.

On 2 July, according to the forecast of meteorological department, from July to August, there will be heavy rainfall in parts of north China, Huanghuai Region, northeast China and northwest China, which may coexist with drought and waterlogging. It will have a negative impact on corn production. At present, it is the flood season, the spring corn enters the jointing stage, and the summer corn enters the seedling stage, which is the key period to strengthen the field management and lay the foundation for a good harvest. According to the characteristics of corn growth and development in different regions, in order to scientifically cope with the adverse climate conditions, the technical advice of corn disaster resistance and harvest in 2021 are formulated.

According to the recent soil moisture monitoring, most area of the northeast China, north China and Huang-huai Region were suitable for the growth of autumn crops. In the northwest and the central part of Inner Mongolia, the soil moisture was insufficient and the local drought occurs. Most of southwest and South China were suitable for soil moisture, while the middle and lower reaches of the Yangtze River were too much for local waterlogging.

On 23 July, heavy rain occurred in most parts of Henan Province, and some areas were seriously affected. Summer corn in the south of Huang-huai-hai Region was mostly in the period from small bell mouth to large bell mouth, and summer corn in the north was mostly in the period from jointing to small bell mouth, reaching the key period of male and female ear differentiation and yield formation. If the corn was waterlogged for a long time, it would have an adverse impact on flowering, pollination and grain filling. In order to scientifically guide waterlogging resistance and growth recovery after disaster in Huang-huai-hai Region, the technical opinions on corn flood resistance and growth promotion in the Huang Huai Hai area were hereby formulated.

Although under the severe situation in the seed industry of fierce competition in 2020, the profit of WINALL continued to grow, achieving an operating revenue of USD247.52 million, an increase of 38.84% over the same period of last year. The net profit was USD22.70 million, with a YoY increase of 41.10%.

In 2020, ZSIG achieved an operating revenue of USD566.00 million, a year-on-year decrease of 28.68%. By the end of December 2020, the total assets was USD513.07 million, and the net profit was USD7.91 million, an increase of 12.96% year on year.

On 7 July, 2021, the Henan Provincial Department of Agriculture and Rural Affairs announced the approved varieties of main crops in Henan Province in 2021. There are 102 varieties, including 63 corn varieties, 11 rice varieties, 12 soybean varieties and 16 cotton varieties.

On 1 July, 2021, Guizhou Province released the approved varieties of main crops in 2021. There are 84 varieties, including 49 corn varieties and 35 rice varieties.

According to China Customs, China's export of corn seed in June, 2021 went down MoM. Specifically, China imported 1,893 kg of corn seed in June, 2021, with the value of USD81,464, up significantly by 234.06% MoM. China exported 16,433kg of corn seed in June, 2021, with the value of USD96,615, down by 79.55% and 15.04% MoM.







Editor's note

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Market analysis

MOA launched the 100 day campaign to achieve a bumper harvest of autumn grain

Summary: On 1 July, MOA launched the 100 day campaign to fight against disasters and achieve a good harvest of autumn grain, which required local agricultural and rural departments to pay close attention to grain production, fully implement various key measures, strive to reduce production in severe disaster areas, ensure stable production in light disaster areas, and increase production in other areas, so as to achieve a good harvest of autumn grain.

On 1 July, the Ministry of Agriculture and Rural Affairs(MOA) launched the 100 day campaign to fight against disasters and achieve a good harvest of autumn grain, which required local agricultural and rural departments to pay close attention to grain production, fully implement various key measures, strive to reduce production in severe disaster areas, ensure stable production in light disaster areas, and increase production in other areas, so as to achieve a good harvest of autumn grain.

It was reported that most of the annual grain production is in autumn. At present, except for double cropping late rice, sowing of autumn crops was basically over. On the whole, autumn grain area in 2021 has increased steadily, and the emergence and growth of seedlings were generally normal. However, to achieve a good harvest, there were still uncertain factors such as regional periodic drought and flood disasters, and outbreaks of major diseases and pests. The implementation of the Fight 100 days to win the autumn harvest action and strive to achieve three goals: first is to increase the area steadily, and strive to reach more than 522 million ha of autumn grain area. Second is to keep the overall output stably and promote the yield per unit area with science and technology. Third is to control the disaster loss. Loss rate of meteorological disasters should be controlled at about 5%, and the loss rate of major diseases and insect pests should be controlled within 5%.

According to the requirements of MOA, agricultural and rural departments at all levels should adhere to the bottom line thinking and establish a firm sense of risk. Based on fighting against disasters, it is necessary to focus on key areas, push forward in different areas and categories, and implement various key measures to ensure a good harvest of autumn grain even the whole year. Besides, the following work should be focused.

First is to do a good job in scientific disaster prevention and reduction. Agricultural departments should strengthen monitoring and early warning, release early warning information in time, and implement daily report system for major disasters. It is necessary to improve the disaster prevention and mitigation plan, implement scientific disaster relief measures, and do a good job in the allocation and transportation of disaster relief materials to ensure the needs of disaster relief.

Second is to do a good job in the prevention and control of major diseases and insect pests. It is important to prevent five pests and one disease, that is, the spodoptera frugiperda, rice planthopper, rice leaf roller, corn borer, armyworm and rice blast. Agricultural departments should further improve the control of three areas and four belts of spodoptera, implement the coordinated control of rice two moving pests, vigorously promote unified prevention, control and governance, and curb the outbreak and epidemic of diseases and insect pests.

Third is accurate guidance of zoning and classification. Agricultural departments should formulate and issue technical





guidance on field management and disaster prevention and mitigation of crops, organize experts to carry out technical services and tour guidance on the production line, and improve the availability of key technologies. It is necessary to further implement green, high-quality and efficient action, popularize regional and standardized technology mode, and promote large-scale balanced production and efficiency.

Fourth is to strengthen the supervision of agricultural means market. It is necessary to strengthen the coordination with the supply and marketing, industry and information departments, do a good job in the production and supply of fertilizers, pesticides and other key varieties, deal with the balance of supply and demand, as well as regional allocation, so as to ensure the stable supply of agricultural market.

Technical advice on corn disaster resistance and harvest in 2021

Summary: On 2 July, according to the forecast of meteorological department, from July to August, there will be heavy rainfall in parts of north China, Huanghuai Region, northeast China and northwest China, which may coexist with drought and waterlogging. It will have a negative impact on corn production. At present, it is the flood season, the spring corn enters the jointing stage, and the summer corn enters the seedling stage, which is the key period to strengthen the field management and lay the foundation for a good harvest. According to the characteristics of corn growth and development in different regions, in order to scientifically cope with the adverse climate conditions, the technical advice of corn disaster resistance and harvest in 2021 are formulated.

Since spring sowing this year, the temperature in Northeast China is generally low, some areas have more precipitation, and the process of corn growth has been delayed. On 2 July, according to the forecast of meteorological department, from July to August, there will be heavy rainfall in parts of north China, Huanghuai Region, northeast China and northwest China, which may coexist with drought and waterlogging. It will have a negative impact on corn production. At present, it is the flood season, the spring corn enters the jointing stage, and the summer corn enters the seedling stage, which is the key period to strengthen the field management and lay the foundation for a good harvest. According to the characteristics of corn growth and development in different regions, in order to scientifically cope with the adverse climate conditions, the technical advice of corn disaster resistance and harvest in 2021 are formulated.

As for the northeast region, most of corn has entered the jointing stage now. In the early spring of this year, it was low temperature and rainy. The sowing date of corn was delayed, moisture content of seedling stage was generally good, and waterlogging and drought occurred in some areas. It is necessary to strengthen the classification guidance, insist on promoting before and controlling after, and ensure the harvest.

- First is overturning and loosening the topsoil and weeding. In order to improve soil temperature and plant growth, it is necessary to strengthen the cultivation and weeding before jointing. For the plots with waterlogging and ponding, ditches should be dug in time to drain water, so as to improve the soil permeability, reduce the soaking time of plants and promote the recovery of growth.
- Second is pest controlling. At present, the climate conditions are more favorable for the occurrence of the second generation armyworm, so the monitoring and early warning should be strengthened. At the same time, it is vital to pay close attention to the dynamics of diseases and pests such as corn borer, meadow moth and leaf





- spot, strengthen the rule of unified prevention and control, and improve the effect of prevention and control.
- Third is chemical control to prevent lodging. At jointing stage, chemical control agent should be sprayed to reduce plant height and ear height, shorten basal internode length, improve stem strength and enhance lodging resistance.
- Fourth is to promote early maturity. Especially In the late stage, spraying fertilizer on the leaves and peeling on the stalks should be taken. Harvesting late reasonably can increase yield.

As for Huang-huai-hai Region, the sowing of summer corn was basically over, and most of them were in seedling stage. The soil moisture was generally suitable, so it is necessary to promote early management and improve the group quality.

- First is to sow at the right time. For the non sown plots, it should be sown early according to the soil moisture content, and direct seeding with stubble to speed up the operation progress. For the plots with insufficient soil moisture, the "Mengtou water" should be put in time after sowing, so as to ensure the sowing quality and seedling preservation.
- Second is to optimize the group. Appropriate crouching seedling at seedling stage can make root down and basal internode stout, and improve plant lodging resistance. Small, weak and diseased plants should be pulled out in time to reduce nutrient consumption, prevent disease transmission and improve ventilation and light transmission conditions. For the plot with high lodging risk, the height should be lowered timely.
- Third is drought resistance and drainage. For the plots with heavy drought, irrigation should be carried out in time to protect seedlings. In case of rainstorm and ponding in seedling stage, the ditches should be dredged in time to reduce waterlogging. If there is high temperature in flowering and pollination period, irrigation should be carried out in advance to adjust soil moisture and buffer the effect of high temperature. Spraying foliar fertilizer in time can promote the recovery of growth.
- Fourth is disease prevention and insect control. It is necessary to strengthen the monitoring and early warning of pests and diseases such as *spodoptera frugiperda*, second generation armyworm, *athetis lepigone*, cotton bollworm, and leaf spot. After corn sowing, chemical weeding should be carried out in time, and spraying method and dosage should be standardized to avoid re-spraying, missed spraying and drug damage.

As for Southwest China and Northwest China, spring corn is mostly in the stage of jointing to male pulling, and the soil moisture is suitable. The weather and the occurrence of diseases and insect pests should be paid close attention and classified managed.

- First is to add fertilizer while the soil moisture is suitable. For the plots with insufficient soil fertility and no use of slow release fertilizer in the early stage, topdressing should be carried out once or twice. 12-20 kg urea per ha was applied to the plots with fertilizer deficiency at 6-7 leaf stage. In the big trumpet stage, the ear tapping fertilizer was applied heavily, and 50-62 kg urea was applied per ha. Potassium dihydrogen phosphate should be applied to the plots with yellow heart leaves at flowering and grain stage.
- Second is disaster prevention and reduction. In order to increase the permeability of soil, it is necessary to open ditches for drainage and cultivate soil in time; In order to improve the root activity of the plant, topdressing should be applied in time. The plots with abnormal spike differentiation and serious yield reduction caused by extreme damage can be converted to silage to reduce disaster losses.
- Third is prevention and control of diseases and insect pests. At present, the new occurrence area of *spodoptera frugiperda* is expanding. Farmers should do a good job in unified control and green control, so as to improve the control effect.





Soil moisture analysis of different regions in China in July

Summary: According to the recent soil moisture monitoring, most area of the northeast China, north China and Huang-huai Region were suitable for the growth of autumn crops. In the northwest and the central part of Inner Mongolia, the soil moisture was insufficient and the local drought occurs. Most of southwest and South China were suitable for soil moisture, while the middle and lower reaches of the Yangtze River were too much for local waterlogging.

According to the recent soil moisture monitoring, most area of the northeast China, north China and Huang-huai Region were suitable for the growth of autumn crops. In the northwest and the central part of Inner Mongolia, the soil moisture was insufficient and the local drought occurs. Most of southwest and South China were suitable for soil moisture, while the middle and lower reaches of the Yangtze River were too much for local waterlogging. In late July, the rainfall increased in the Middle East China, North China, northeast China, Huang-huai Region and southwest China. The rainfall in some areas reached 200 mm, and the local rainfall was strong. Therefore, attention should be paid to flood prevention. The precipitation in the northwest of China was 20%-50% less than that in 2020.

The soil moisture in Northeast China was generally suitable, and the field management of autumn grain should be done well according to soil moisture and seedling. In the early stage, 40-200 mm precipitation occurred in most areas, which effectively replenished soil moisture. Compared with the same period in June, the soil water content of 60% of the monitoring stations increased. The relative water content of 0-20cm soil was 70%-88%, which was 4%-6% higher than that of the same period last month. The soil moisture was suitable for the growth of spring corn, soybean and other crops. The relative water content of soil in western Liaoning Province and Eastern Inner Mongolia was less than 65%. At present, the region was in the critical growth period of autumn crops, and the demand for water and fertilizer was large, so it was necessary to manage water and fertilizer. In arid areas, subsoiling and shoveling should be carried out in time to cut off soil capillary and reduce surface water evaporation. There was more thunderstorms in Northeast China. The precipitation was generally conducive to the growth and development of local crops. The low-lying farmland should be protected from waterlogging, and local hail should be prevented.

Most areas of North China and Huang-huai Region were suitable for the growth of summer crops. In the early stage, 10-100 mm precipitation occurred in most areas, alleviating the drought in Shanxi Province and Hebei Province. Compared with the same period in June, the soil water content of 80% of the monitoring stations increased. At present, the relative water content of 0-20cm soil in most areas was 68%-95%, which was 15%-20% higher than that in the same period of last month. Most of the soil moisture was in the appropriate range, which was generally conducive to the growth of summer corn. The precipitation in North China and Huang Huai Region was close to the same period of the year or more, and the water and heat conditions were generally favorable for the growth and development of crops. Therefore, the water and fertilizer management of crops should be strengthened in time in combination with precipitation. In the southwest of Shanxi Province and the middle and eastern part of Huang-huai Region, attention should be paid to preventing waterlogging caused by excessive rainfall, timely removing farmland





ponding and appropriate topdressing, and preventing diseases and pests.

The water and fertilizer management should be carried out for drought resistance. Compared with the same period in June, the soil moisture content of 60% monitoring sites in Northwest China decreased. At present, the relative water content of 0-20cm soil in dryland was 55%-75%, which was 8-15% lower than that in June. The relative water content of 0-20cm soil in some areas of Inner Mongolia, Eastern Gansu Province, Northern Shaanxi Province, Northwest Shanxi Province, central and Southern Ningxia Hui Autonomous Region and Xinjiang Uygur Autonomous Region was less than 60%. The results show that the soil moisture was suitable in the irrigation area. It was necessary to spray foliar fertilizer, water-soluble fertilizer and drought resistance agent in time to improve the drought resistance ability of crops.

The soil moisture was suitable in most parts of southwest China and South China, and excessive in the middle and lower reaches of the Yangtze River. Compared with the same period in June, the soil water content of 70% monitoring stations in southwest and South China increased. At present, the relative water content of 0-20cm soil in most areas was 78%-95%, which was 4-9% higher than that in the same period of last month. The soil moisture was suitable for the growth of dry land crops such as corn. The relative water content of 0-20cm soil in some areas of central Sichuan Province was less than 60%, and the soil moisture was insufficient, so it was necessary to protect seedlings in time. It was the jointing and booting stage of single cropping rice, which was the key period of water and fertilizer absorption. Due to excessive soil moisture and local waterlogging in the middle and lower reaches of the Yangtze River, the ditches should be cleared in time to ensure smooth drainage and keep the field shallow. Drainage ditch should be excavated for corn in low-lying platform to prevent mountain torrents.

Technical advice on corn growth promotion in Huang-huai-hai Region

Summary: On 23 July, heavy rain occurred in most parts of Henan Province, and some areas were seriously affected. Summer corn in the south of Huang-huai-hai Region was mostly in the period from small bell mouth to large bell mouth, and summer corn in the north was mostly in the period from jointing to small bell mouth, reaching the key period of male and female ear differentiation and yield formation. If the corn was waterlogged for a long time, it would have an adverse impact on flowering, pollination and grain filling. In order to scientifically guide waterlogging resistance and growth recovery after disaster in Huang-huai-hai Region, the technical opinions on corn flood resistance and growth promotion in the Huang Huai Hai area were hereby formulated.

On 23 July, heavy rain occurred in most parts of Henan Province, and some areas were seriously affected. Summer corn in the south of Huang-huai-hai Region was mostly in the period from small bell mouth to large bell mouth, and summer corn in the north was mostly in the period from jointing to small bell mouth, reaching the key period of male and female ear differentiation and yield formation. If the corn was waterlogged for a long time, it would have an adverse impact on flowering, pollination and grain filling. In order to scientifically guide waterlogging resistance and growth recovery after disaster in Huang-huai-hai Region, the technical opinions on corn flood resistance and growth promotion in the Huang Huai Hai area were hereby formulated.





First is to drain the accumulated water to prevent waterlogging. After the rain stops, it is necessary to drain the accumulated water in the field in time. The drainage ditch can be excavated or dredged with machinery, pump and other facilities to discharge the accumulated water in the field, so as to prevent the corn from soaking for a long time. If there is a large amount of sludge on the blade, the sludge shall be cleaned in time to increase the light receiving area of the blade.

Second, intercropping and fertilization can promote growth. If the weather is fine, timely intercropping and hoeing can accelerate soil water withdrawal, improve permeability and promote root regeneration. Quick acting nitrogen fertilizer and monopotassium phosphate shall be applied in time to promote the recovery of growth. Topdressing at panicle stage can be combined with post disaster fertilization, and manual topdressing or UAV foliar spraying can be used to apply about 49 kg of urea per ha to the plots that have not been topdressing panicle fertilizer, and 12-25 kg of urea per hectare to the plots that have been topdressing panicle fertilizer.

Third is disease and pest control. After waterlogging, the humidity in corn population is large, and the plant has wounds, which is easy to cause diseases and insect pests. Monitoring should be strengthened, focusing on corn bacterial diseases, smut, brown spot, leaf spot and stem rot, so as to achieve early detection and early prevention and control. Brassinolide can be added and applied appropriately to enhance plant stress resistance and improve control effect.

Fourth is to support the plant according to the situation of corn seedlings. For corn before the big bell mouth stage, generally, the plant can stand upright by itself without straightening after lodging. For corn reaching the tasseling and powdering stage, they shall be artificially righted and fixed by soil cultivation. Some leaves of lodging corn are often buried by silt and can be cut off with a sickle. If the heart leaves are silted with sediment, part of the heart leaves can be cut off. It should be noted that the fewer leaves are cut off, so as to avoid damaging the plant growth point.

Fifth is replanting to reduce losses. Corn can be changed to silage corn in the land with serious flooding but not out of production. For waterlogged plots, sweet potato, buckwheat and other crops or short season vegetables should be planted as soon as possible to reduce the losses caused by the disaster.





Company dynamics

Financial and business analysis of WINALL in 2020

Summary: Although under the severe situation in the seed industry of fierce competition in 2020, the profit of WINALL continued to grow, achieving an operating revenue of USD247.52 million, an increase of 38.84% over the same period of last year. The net profit was USD22.70 million, with a YoY increase of 41.10%.

In 2020, Winall Hi-tech Seed Co., Ltd.(WINALL) mainly engaged in the research and development, breeding, promotion and service of the main crop seeds such as rice, corn and wheat, and agricultural business driven by its high-quality and characteristic varieties. WINALL has been adhering to the road of seed industry innovation, and continuously cultivated and promoted a series of excellent crop varieties. At present, its main products includes hybrid rice, hybrid corn, wheat, cotton, rape, vegetables and other crop seeds. The sales area covers the main domestic crop planting areas in Central China, Northeast China and North China, as well as overseas areas such as Southeast Asia, South Asia and Africa. Besides, agricultural products driven by high-quality characteristic varieties are mainly supplied to domestic grain and breeding enterprises.

Although under the severe situation in the seed industry of fierce competition in 2020, the profit of WINALL continued to grow, achieving an operating revenue of USD247.52 million, an increase of 38.84% over the same period of last year. The net profit was USD22.70 million, with a YoY increase of 41.10%. The company's performance growth was mainly due to the advantages of scientific research and innovation, and the comprehensive characteristics of varieties were outstanding. Also, it benefited from strengthening marketing, and increased market development efforts. The seed business of the company continued to grow, and the main hybrid rice varieties performed well in domestic and foreign markets. Agricultural sales of WINALL increased by 33.99% year-on-year, mainly due to the good performance of the main varieties market. The sales volume of seeds in this period was 66.30 million kg, an increase of 20.04% over the same period of last year. Through in-depth cooperation with grain processing enterprises in the industrial chain and other related brand companies, the sales volume of grain business was 154.81 million kg, with a YoY increase of 125.86%.





3.1-3 Major financial performance indicators of WINALL, million USD

Item	2020	2019	YoY change
Total revenue	247.52	178.28	38.84%
Net profit	22.70	13.40	69.40%
Item	End of 2020	End of 2019	YoY change
Total assets	382.09	267.30	42.94%
Net assets	104.36	74.41	40.24%

Source: Winall Hi-tech Seed Co. Ltd.

Note: The USD/CNY exchange rate used is USD1.00=RMB6.4709 on 1 July 2021 sourced from the People's Bank of China.

3.1-4 WINALL's revenues, 2020 vs 2019, million USD

Item	2020		2019		YoY change
	Revenue	Ratio of the total revenue	Revenue	Ratio of the total revenue	
Rice seed	134.14	54.19%	106.18	59.55%	26.34%
Corn seed	20.64	8.34%	17.59	9.87%	17.33%
Wheat seed	13.44	5.43%	11.86	6.65%	13.32%
Melon and vegetable seeds	4.42	1.79%	3.06	1.71%	44.59%
Grain business	64.86	26.20%	27.90	15.65%	132.45%
Other business	10.02	4.05%	11.69	6.56%	-14.28%

Source: Winall Hi-tech Seed Co. Ltd.

Note: The USD/CNY exchange rate used is USD1.00=RMB6.4709 on 1 July 2021 sourced from the People's Bank of China.

Based on scientific research and innovation, the company solidly promoted production management and comprehensively improved seed quality. Through scientific formulation of seed production plan, reasonable layout of production base, optimization of seed production technology scheme, and strengthening of production process control and other measures, the company solidly promoted production management and comprehensively improved seed quality level. In order to strengthen and expand the seed industry and improve the market share, the company actively arranged the whole industry chain to help the rapid development. By cooperating with superior upstream and downstream enterprises, WINALL jointly laid out the whole industrial chain, built brand grain production bases in Anhui Province, Sichuan Province, Hubei Province and so on, created special grain supply, and promoted the sales





of high-quality varieties. Meanwhile, WINALL and Sinochem Agriculture Holdings continued to cooperate in Modern Agriculture Platform (MAP), providing seed, medicine, and fertilizer integrated supply and food storage services for growers, and promoting the continuous development of agricultural service business.

WINALL continuously strengthened the marketing, enhanced the market development ability. Since the resumption of the epidemic at the beginning of 2020, the company has taken a number of measures to enhance its market development ability. First, it actively expanded the two major markets in Central China and East China, realized the coverage of Quanyin rice core areas in the middle and lower reaches of the Yangtze River. Second, under the influence of global epidemic and limited export business activities, WINALL continued to increase the layout and expansion of South Asia, Southeast Asia and Africa markets such as Pakistan, Bangladesh, Indonesia, Myanmar, Vietnam, Philippines, Nepal and Angola. The annual export of crop seeds was 5.37 million kg, an increase of 29.69% over the same period of last year. As of December 2020, 17 rice or corn varieties have been approved by Bangladesh, Angola, Indonesia and other places, laying the foundation for subsequent sales.

Financial and business analysis of ZSIG in 2020

Summary: In 2020, ZSIG achieved an operating revenue of USD566.00 million, a year-on-year decrease of 28.68%. By the end of December 2020, the total assets was USD513.07 million, and the net profit was USD7.91 million, an increase of 12.96% year on year.

The main business of Zhongnongfa Seed Industry Group Co., Ltd.(ZSIG) is research and development, production and sales of crop seeds, chemical fertilizer trade and production and sales of pesticides. The core of ZSIG's main business is crop seed business, and its products include corn, rice, wheat, cotton, rape and other crop seeds.

In 2020, ZSIG carried out operation and management closely around the its development strategic objectives. New achievements have been made in variety research and development, and the company's core competitiveness has been continuously improved. It strengthened the management of seed production plan, improved quality and efficiency, actively expanded new business, and strove for steady performance. In 2020, ZSIG achieved an operating revenue of USD566.00 million, a year-on-year decrease of 28.68%. By the end of December 2020, the total assets was USD513.07 million, and the net profit was USD7.91 million, an increase of 12.96% year on year.





3.2-3 Major financial performance indicators of ZSIG, million USD

Item	2020	2019	YoY change
Total revenue	566.00	793.66	-28.68%
Net profit	7.91	7.00	12.96%
Item	End of 2020	End of 2019	YoY change
Total assets	513.07	477.28	7.50%
Net assets	226.75	222.58	1.88%

Source: Zhongnongfa Seed Industry Group Co., Ltd.

Note: The USD/CNY exchange rate used is USD1.00=RMB6.4709 on 1 July 2021 sourced from the People's Bank of China.

For the crop seed industry, ZSIG's seed business achieved an operating income of USD95.35 million, a year-on-year increase of 1.98%; Gross profit was USD20.37 million, a year-on-year decrease of 3%.

As for corn business, ZSIG sold 11,700 tonnes of corn seeds in 2020, with an operating income of USD22.10 million, a year-on-year decrease of 17.60%. Affected by the rise of corn commodity prices in the international and domestic markets, the corn seed market picked up. However, in recent years, the channel of corn seed approval has been widened, the number of approved varieties has increased sharply, and the overall market supply exceeded demand, resulting in fierce competition. In addition, COVID-19 had great influence on the production, transportation and sale of corn seeds of ZSIG in Wuhan City, Hubei Province. Although ZSIG's new corn self business income increased, its overall corn seed sales and income still declined year on year.

As for wheat business, ZSIG sold 119,700 tonnes of wheat seeds in 2020, with an operating income of USD54.71 million, a year-on-year decrease of 0.33%. In 2020, there was a large-scale harvest of wheat with generally good quality. The demand for wheat seeds decreased as a whole, and the seed price fell. Through increasing publicity, actively promoting wheat order business, adopting a variety of marketing methods and other measures, the sales volume and income of wheat decreased slightly.

As for rice business, the company sold 10,900 tonnes of rice seeds in 2020, with an operating income of USD17.31 million, up by 2.04% year on year.

Affected by the national policy, the planting area of double cropping rice increased. The demand for rice seeds has increased, especially for early rice seeds, and the market competition has eased. ZSIG actively took countermeasures, put the market as the guidance, adjusted the variety structure, and increased the market propaganda of new varieties. In 2020, the company's sales of hybrid rice varieties increased, making sales revenue of rice seeds increased year on year.





3.2-5 ZSIG's revenues, 2020 vs 2019, million USD

Item	2020		2019		YoY change
	Revenue	Ratio of the total revenue	Revenue	Ratio of the total revenue	
Wheat seed	54.76	9.67%	54.94	6.92%	-0.33%
Corn seed	22.06	3.90%	26.77	3.37%	-17.60%
Rice seed	17.28	3.05%	16.94	2.13%	2.04%
Peanut seed	1.72	0.30%	1.71	0.22%	0.61%
chemical fertilizer	354.44	62.62%	586.34	73.88%	-39.55%
pesticides	44.80	7.91%	50.22	6.33%	-10.79%
other	70.94	12.53%	56.75	7.15%	25.01%

Source: Zhongnongfa Seed Industry Group Co., Ltd.

Note: The USD/CNY exchange rate used is USD1.00=RMB6.4709 on 1 July 2021 sourced from the People's Bank of China.

For chemical fertilizer trade, in 2020, the sales volume of chemical fertilizer was 1.267 million tonnes, and the operating income was USD354.51 million, with a year-on-year decrease of 39.55%. Gross profit was USD4.16 million, with a year-on-year decrease of 5.72%. Huaken International Trade Co., Ltd. (Huaken International), the subsidiary of ZSIG, was engaged in chemical fertilizer trade. Its revenue decreased significantly due to the COVID-19, trade friction and fierce competition. However, Huaken International has taken various measures to actively coordinate with customs to ensure the supply of goods. At the same time, it has integrated international high-quality fertilizer product resources and introduced many kinds of products, especially the new type special fertilizer with high profit level. The number of imports has continued to increase. While the operating income has decreased significantly, the gross profit and net profit have only decreased slightly.

For pesticide business, in 2020, ZSIG sold 14,600 tonnes of pesticides with an operating income of USD44.82 million. Gross profit was USD9.87 million, with a year-on-year decrease of 10.37%. In H1 2020, due to factors such as COVID-19, ethylene supply and environmental control, the operating rate dropped by about 20% YoY, so the output decreased. In H2 2020, affected by market fluctuations, the operating rate of downstream products of DEA products was insufficient, resulting in product sales blocked. Combined with the above factors, the performance declined.





Variety dynamics

Approved varieties of main crops in Henan Province in 2021

Summary: On 7 July, 2021, the Henan Provincial Department of Agriculture and Rural Affairs announced the approved varieties of main crops in Henan Province in 2021. There are 102 varieties, including 63 corn varieties, 11 rice varieties, 12 soybean varieties and 16 cotton varieties.





4.1-2 List of approved varieties in Henan Province in 2021

Crop	No.	Variety	Applicant
Corn	1	Woyou 218	Henan Dingyan Zetian Agricultural Technology Development Co., Ltd., Henan Dingyou Agricultural Technology Co., Ltd
	2	Junyu 106	Zhengzhou Kangrui Agricultural Technology Co., Ltd
	3	Jingyu 787	Henan Fengqi Agricultural Technology Co., Ltd
	4	Nonghua 137	Beijing Golden agricultural and huaseed Technology Co., Ltd
	5	MC876	Henan Modern Seed Industry Crop Research Institute
	6	Xianyu 1773	Tieling pioneer seed research Co., Ltd
	7	Furui 6	Hainan agricultural reclamation Nanfan Seed Industry Co., Ltd., Henan Sutai Agricultural Technology Co., Ltd
	8	Runquan 6311	Anhui haibian Agricultural Technology Co., Ltd
	9	J9881	China seed International Co., Ltd
	10	AVIC 612	Beijing Huaao agricultural Co., Ltd
	11	Zhengyuanyu 65	Henan Jinyuan Seed Industry Co., Ltd
	12	Yuntaiyu 35	Huaichuan seed science and Technology Research Institute of Jiaozuo City
	13	Jinhua 175	Hebi Jinhua corn Science Research Institute
	14	Jinxiangyu 319	Zhengzhou jinpaneling jade Seed Industry Technology Co., Ltd
	15	Weike 819	Zhengzhou Weike Crop Breeding Technology Co., Ltd
	16	Zhengyuanyu 435	Henan Jinyuan Seed Industry Co., Ltd
	17	Runze 917	Henan dehekun Yuan Agricultural Technology Co., Ltd
	18	Mengyu 369	Hebaomeng
	19	Pudan 12	Puyang Academy of Agricultural Sciences
	20	Wanyu 17	Nanyang Academy of Agricultural Sciences
	21	HKUST 698	Henan University of science and technology
	22	Zheng Dan 7168	Institute of grain crops, Henan Academy of Agricultural Sciences





23	Zheng Dan 7603	Institute of grain crops, Henan Academy of Agricultural Sciences
24	Zheng Dan 918	Institute of grain crops, Henan Academy of Agricultural Sciences, Henan biological breeding center Co., Ltd
25	Chunqiu 339	Henan spring and autumn Seed Industry Technology Co., Ltd
26	Chunqiu 795	Henan spring and autumn Seed Industry Technology Co., Ltd
27	Jinyu 66	Henan jingranule Seed Co., Ltd
28	Chengyu 7211	Henan Dacheng Seed Industry Co., Ltd
29	Huaichuan 160	Henan huaichuan Seed Industry Co., Ltd
30	Pan Yu 398	Henan huangpan District Deshen Seed Industry Co., Ltd
31	Xiuqing 737	Henan Xiuqing Seed Industry Co., Ltd
32	Huazhou 710	Henan slip Feng Seed Industry Technology Co., Ltd
33	Zheng Yuanyu 650	Henan Jinyuan Seed Industry Co., Ltd
34	Zheng Yuanyu 986	Henan Jinyuan Seed Industry Co., Ltd
35	Fanyu 606	Henan huangpan District Deshen Seed Industry Co., Ltd
36	Tongzhou 678	Hebi he Shengnong Technology Co., Ltd
37	Yudi 838	Henan Zhongyuan Seed Industry Technology Co., Ltd
38	Longyu 1701	Henan Tailong Seed Industry Co., Ltd
39	Lanyu 705	Henan Tianmin Seed Co., Ltd
40	Yufeng 111	Henan Yufeng Seed Industry Co., Ltd
41	Yufeng 669	Henan Yufeng Seed Industry Co., Ltd
42	Xinyu 1861	Henan Yuxin Seed Industry Co., Ltd
43	Anyu 706	Anyang Academy of Agricultural Sciences
44	Jundan 658	Hebi Academy of Agricultural Sciences
45	Luodan 30	Luoyang Academy of agriculture and Forestry
46	Ji Yufeng 303	Henan Darun Agriculture Co., Ltd
47	Yudan 733	Henan Agricultural University





	48	Yudan 783	Henan Agricultural University
	49	Baiyu 9284	Henan University of science and technology
	50	Yangyu 181	Henan Yuyu Seed Co., Ltd
	51	Yudan 717	Henan Agricultural University
	52	Yudan 739	Henan Agricultural University
	53	SZ18	Henan Shenzhou Seed Co., Ltd
	54	Yujinhuang 100	Henan Jinke Seed Co., Ltd., Xinxiang origin Agricultural Technology Co., Ltd
	55	Zhengbai Tiannuo No. 5	Institute of grain crops, Henan Academy of Agricultural Sciences
	56	Zhengbai Tiannuo No. 6	Institute of grain crops, Henan Academy of Agricultural Sciences
	57	Bonuo 118	Institute of agricultural science of boyai County
	58	Zheng Dan 919	Institute of grain crops, Henan Academy of Agricultural Sciences
	59	Zheng Dan 811	Institute of grain crops, Henan Academy of Agricultural Sciences, Henan biological breeding center Co., Ltd
	60	Kaiqing 1	Kaifeng Academy of agricultural and Forestry Sciences
	61	Qingyu 18	Henan Denghai zhenggrain Seed Co., Ltd
	62	Arete 997	Zhengzhou irette Biotechnology Co., Ltd. and Ministry of Province jointly established the National Key Laboratory of wheat and corn crop science
	63	Arete 1722	Zhengzhou irette Biotechnology Co., Ltd. and Ministry of Province jointly established the National Key Laboratory of wheat and corn crop science
Rice	1	Y Liangyou Yuehesimiao	Sichuan Taiwo Seed Industry Co., Ltd
	2	Hengfengyou Yuehesimiao	Sichuan Taiwo Seed Industry Co., Ltd
	3	Liangyou 279	Xinyang Academy of Agricultural Sciences
	4	Sticky Liangyou 1206	Anhui Lianfeng Seed Co., Ltd
	5	Li Liangyou 2018	Changsha Licheng Seed Co., Ltd
	6	Shenzhen Liangyou 2018	Xinyang Jinyu Agricultural Technology Co., Ltd





	7	Chunyou 917	China Rice Research Institute
	8	Jingjing 1000	Wang Ping and mengrui
	9	Yujing 3	Puyang County Fuke planting professional cooperative
	10	Hujing 1	Jia Jianzhong, jiahuifang, jiayonghe
	11	Yuzaojing 1	Henan zhengyida Seed Industry Co., Ltd., Jiangsu Ruicheng Agricultural Technology Co., Ltd
Soybean	1	Xukedou 1	Henan XuKe Seed Industry Co., Ltd
	2	Ningdou 2	Henan Tianning Seed Industry Co., Ltd
	3	Zhongdou 49	Institute of oil crops, Chinese Academy of Agricultural Sciences
	4	Yongmin bean 777	Anhui Yongmin Seed Industry Co., Ltd
	5	Nannong 47	Nanjing Agricultural University
	6	Pudou 561	Puyang Academy of Agricultural Sciences
	7	Zhudou 27	Zhumadian Academy of Agricultural Sciences
	8	Zhengdou 365	Institute of economic crops, Henan Academy of Agricultural Sciences, Henan biological breeding center Co., Ltd
	9	Jingjiudou 1168	Henan Province Daging jiuseed Industry Co., Ltd., Shangqiu Academy of agricultural and Forestry Sciences
	10	Zhoudou 30	Zhoukou Academy of Agricultural Sciences, Henan Zhouyuan Seed Industry Co., Ltd
	11	Andou 109	Anyang Academy of Agricultural Sciences
	12	Zheng Dou 436	Institute of economic crops, Henan Academy of Agricultural Sciences, Henan biological breeding center Co., Ltd
Cotton	1	Zhongmiansuo 9712	Cotton Institute, Chinese Academy of Agricultural Sciences
	2	GB826	Institute of cotton, Chinese Academy of Agricultural Sciences Huazhong Agricultural University
	3	Zhongmiansuo 9B01	Cotton Institute, Chinese Academy of Agricultural Sciences
	4	Zhongmian EB002	Cotton Institute, Chinese Academy of Agricultural Sciences
	5	Nannong 992	Nanjing Agricultural University
	6	Medium M02	Cotton Institute, Chinese Academy of Agricultural Sciences
	7	Zhongmiansuo 95602	Cotton Institute, Chinese Academy of Agricultural Sciences





8	Zhongmian EB005	Cotton Institute, Chinese Academy of Agricultural Sciences
9	Yumian 601	Institute of economic crops, Henan Academy of Agricultural Sciences, Henan fengdekang Seed Co., Ltd
10	Yumian 206	Institute of economic crops, Henan Academy of Agricultural Sciences, Henan fengdekang Seed Co., Ltd
11	Lumian 1161	Shandong Cotton Research Center
12	Lu Mian 303	Shandong Cotton Research Center
13	Zhongshengmian No. 4	Institute of biotechnology, Chinese Academy of Agricultural Sciences
14	Zhongmian EB001	Cotton Institute, Chinese Academy of Agricultural Sciences
15	Yumian 701	Institute of economic crops, Henan Academy of Agricultural Sciences, Henan fengdekang Seed Co., Ltd
16	BM018	Henan University of science and technology

Source: Henan Provincial Department of Agriculture and Rural Affairs

Approved varieties of main crops in Guizhou Province in 2021

Summary: On 1 July, 2021, Guizhou Province released the approved varieties of main crops in 2021. There are 84 varieties, including 49 corn varieties and 35 rice varieties.



4.2-2 List of main crop varieties approved by Guizhou Province in 2021

Crop	No.	Variety	Applicant
Rice	1	Jing3 You348	Zunyi Academy of Agricultural Sciences
	2	Ming1 You164	Fujian LiuSan Seed Industry Co., Ltd
	3	Yayou 2275	Sichuan Zhenghong Biotechnology Co., Ltd., College of agriculture, Sichuan Agricultural University
	4	Hengfengyoulihe	Guizhou zhaohefeng rice technology R & D Co., Ltd
	5	Yexiangyoumeihe	Guizhou haowangyue Agricultural Development Co., Ltd
	6	Yuxiang Meihe	Guizhou Jinnong Technology Co., Ltd
	7	Zaofengyou 393	Guizhou Jinnong Technology Co., Ltd
	8	Youyou 788	Guizhou Youhe Seed Industry Co., Ltd
	9	Tsuen you 737	Guizhou zhunongke Seed Industry Co., Ltd
	10	Tailiangyou 1332	Guizhou zhunongke Seed Industry Co., Ltd
	11	Jiuyou 27 Zhan	Guizhou zhunongke Seed Industry Co., Ltd
	12	Yexiang Youguihe	Guizhou Institute of Crop Variety Resources
	13	Guifengyou 393	Guizhou Jinjia Agricultural Technology Co., Ltd., Guizhou Rice Research Institute
	14	Jingyou 4002	Academy of Agricultural Sciences of Qiandongnan Miao and Dong Autonomous Prefecture and Guizhou Rice Institute
	15	Quanxiangyou 118	Guizhou Rice Research Institute
	16	Xiangliang Yougui Fuzhan	Guizhou Xinli Hefeng Agricultural Technology Co., Ltd
	17	T Xiangyouguifuzhan	Guizhou Rice Research Institute
	18	Zhuyou Yuhezhan	Guiyang Jinqian Agricultural Technology Co., Ltd
	19	Jinchengyou 2582	Sichuan Huazhen Agricultural Technology Development Co., Ltd
	20	Nanjing 60	Institute of grain crops, Jiangsu Academy of Agricultural Sciences
	21	Chuanzhongyou 3107	Guizhou Wansheng Seed Industry Co., Ltd



	22	Taiyou Liangzhan	Guizhou Fubang Seed Industry Co., Ltd
	23	Tianyou 175	Guizhou Rice Research Institute
	24	Yixiangyou 819	Guizhou Zunyi Huihuang Seed Industry Co., Ltd
	25	Anjing 315	Anshun Academy of Agricultural Sciences
	26	Vientiane 982	Guizhou Fubang Seed Industry Co., Ltd
	27	Tsuen you 1514	China Rice Research Institute
	28	Fudao 88	Hubei Huimin Agricultural Technology Co., Ltd
	29	Chunyou 926	Guizhou Zhongwang Seed Industry Co., Ltd
	30	Huazhongyou No.1	Guizhou hemufu Seed Co., Ltd
	31	Luxiangyou 219	Anshun Academy of Agricultural Sciences
	32	Luyou 692	Guizhou Rice Research Institute
	33	Mingnuoyou 2086	Guizhou zhunongke Seed Industry Co., Ltd
	34	Pinxiangyouyinzhen	Guizhou Xinzhong Yiye Co., Ltd
	35	Youxiangyou 668	Guizhou Youhe Seed Industry Co., Ltd
Corn	1	Qiannuo 268	Guizhou Jinnong Technology Co., Ltd
	2	Jinnuo 1	Guizhou Jinnong Technology Co., Ltd
	3	Jinyu 106	Guizhou Jinnong Technology Co., Ltd
	4	Jinyu 150	Guizhou Jinnong Technology Co., Ltd
	5	Hainuo 218	Guizhou Fubang Seed Industry Co., Ltd
	6	Guiheyu 816	Guizhou guyufu Agricultural Technology Co., Ltd
	7	Qianqing 235	Guizhou Grassland Research Institute
	8	Longnuo 1	Lu Ying
	9	Huangdan 8216	Guizhou Zunyi Huihuang Seed Industry Co., Ltd
	10	Qingnuo 955	Guizhou Zunyi Huihuang Seed Industry Co., Ltd
	11	Huangdan 118	Guizhou Zunyi Huihuang Seed Industry Co., Ltd





12	Muyu 905	Guizhou hemufu Seed Co., Ltd
13	Jinhe 902	Guizhou hemufu Seed Co., Ltd
14	Jinhe 905	Guizhou hemufu Seed Co., Ltd
15	Jinhe 901	Guizhou hemufu Seed Co., Ltd
16	Fenggeyu 958	Deng Peiyan
17	Xinyu 3540	Guizhou Xinyu Seed Industry Co., Ltd
18	Xinyu 135	Guizhou Xinyu Seed Industry Co., Ltd
19	Golden single 88	Guizhou Jifeng Seed Industry Co., Ltd
20	Jinhuandan No. 7	Guizhou Jifeng Seed Industry Co., Ltd
21	Yayu 985	Sichuan Southwest Kelian Seed Industry Co., Ltd
22	Weidan 4	Li Ke
23	Yubaidan 11	Bijie Yufeng Seed Industry Co., Ltd
24	Huinongqing 2	Bijie Huinong Technology Co., Ltd
25	Huinongdan No. 3	Bijie Huinong Technology Co., Ltd
26	Huinongdan No. 4	Bijie Huinong Technology Co., Ltd
27	Xiangmanyu Tiannuo	Sichuan chuangshijia Agricultural Technology Co., Ltd
28	Zhentiannuo No. 1	Guizhou Haohao Agricultural Development Co., Ltd
29	Jinyu 103	Guizhou dry grain Research Institute
30	Haoyu 5	Guizhou Haohao Agricultural Development Co., Ltd
31	Yudan 199	Zunyi agricultural materials (Group) nongzhiben Seed Industry Co., Ltd
32	Jin Fuyu 808	Zunyi agricultural materials (Group) nongzhiben Seed Industry Co., Ltd
33	Zunyu 999	Zunyi agricultural materials (Group) nongzhiben Seed Industry Co., Ltd
34	Shuijinyu 8	Guizhou Bijie Shengnong Seed Industry Co., Ltd
35	Zhutiannuo No. 8	Guiyang Agricultural Experiment Center
36	Shanyu 14	Bijie qixingguan Shanfeng corn Science Research Institute





37	Shanyu 15	Bijie qixingguan Shanfeng corn Science Research Institute
38	Bofeng 8100	Yunnan Zhifeng Seed Industry Co., Ltd
39	Fengdengyu 9	Yunnan Zhifeng Seed Industry Co., Ltd
40	Fengdengyu 3	Yunnan Zhifeng Seed Industry Co., Ltd
41	Qiannongyu No. 8	Yunnan Zhifeng Seed Industry Co., Ltd
42	Shengguyu 687	Guizhou zhunongke Seed Industry Co., Ltd
43	Youyu 009	Guizhou Youhe Seed Industry Co., Ltd
44	Genyu 228	Guizhou Huagen Agricultural Technology Co., Ltd
45	Heinuo 68	Guizhou Xinzhong Yiye Co., Ltd
46	Xinzhongyu 99	Guizhou Xinzhong Yiye Co., Ltd
47	Xinzhongyu 4	Guizhou Xinzhong Yiye Co., Ltd
48	Shundan No. 8	Anshun Academy of Agricultural Sciences
49	Shunnuo 007	Anshun Academy of Agricultural Sciences

Source:Guizhou Province





News in Brief

Wheat in Xinjiang Uygur Autonomous Region reached harvest peak

As of 9 July, 3.35 million ha of wheat had been harvested in Xinjiang Uygur Autonomous Region, an increase of 283,300 ha over 2020, with a harvest rate of 55.9%. Among them, Hotan city and Kashgar City have completed the harvest work. Except Altay area, Northern Xinjiang has gradually entered the harvest peak. According to the agricultural situation scheduling, since 2021, there has been abundant rainfall, light diseases and insect pests, and good growth of crops in the field. Wheat production in Xinjiang was expected to present an increasing trend of area, total yield and unit yield. If there are no terrible natural disasters in the later stage, agricultural production will reap another bumper harvest in 2021. At present, all localities are adjusting measures to local conditions, seizing agricultural time and completing summer planting work with high quality. The whole region has replanted 2.42 million ha of all kinds of crops, an increase of 324,600 ha over the same period of 2020.

China got a good harvest of summer grain in 2021

According to the data released by the National Bureau of Statistics on 14 July, China's total summer grain output in 2021 was 145.82 million tonnes, an increase of 2.97 million tonnes or 2.1% over 2020. Among them, wheat output was 134.34 million tonnes, an increase of 2.59 million tonnes or 2.0% over 2020. The data showed that the sown area of summer grain had a restorative growth. In 2021, the sown area of summer grain in China was 26.44 million ha, 265,500 ha more than that in 2020, with an increase of 1.0%, reversing the downward trend for five consecutive years. The yield per unit area of summer grain increased steadily. In 2021, China's summer grain yield per unit area was 5,515.7 kg/ha, an increase of 57.4 kg/ha or 1.1% compared with that in 2020, increasing for three consecutive years. It was mainly due to the favorable climate and strict field management.

Dispose wheat straw to control *Athetis lepigone*

Athetis lepigone mainly occurs in the wheat-corn continuous cropping area of Huang-huai-hai Region. It is a typical pest caused by some conservation tillage conditions such as straw returning, no tillage sowing. Adults have the characteristics of aggregation and concentrated damage, which seriously threaten corn production. There are about 3-5 larvae around a corn seedling, even more than 20 larvae. *Athetis lepigone* will drill and bore the base of the corn stem under the wheat straw mulch, which is difficult to find and control, and can cause 80%-90% dead seedling rate. After wheat mechanized harvesting, long wheat straw is needed to attract adults to lay eggs. Therefore, when wheat is harvested, ecological measures such as fine crushing of straw, removal of wheat straw in the field, elimination of wheat stubble and removal of wheat straw in the sowing line can be taken to control the pest of *Athetis lepigone* and ensure the safety and strength of corn seedlings.

NATESC held national conference on the occurrence trend of major diseases and pests of corn

From 12 July to 13 July, the National Agro-Tech Extension and Service Center (NATESC) held a national conference on the occurrence trend of major diseases and pests of corn in 2021 in Harbin City. The meeting judged the





occurrence trend of major diseases and pests in corn in H2 2021. It was estimated that in 2021, the occurrence of diseases and insect pests in the middle and late stage of corn would be severe, with an area of 340 million ha times, including 231 million ha times of pests and 109 million ha times of diseases. Migratory pests such as *spodoptera frugiperda*, third-generation armyworm, second-generation meadow moth and cotton bollworm would pose a great threat to corn production. Corn borer, corn northern leaf blight and corn brown spot would occur currently, and corn rust may recur in southern China.

Suggestions on corn management after rainstorm

Since 20 July, there has been heavy rain in Henan Province, and extreme weather such as heavy rainstorm has occurred in some areas. At the critical period of autumn grain crop growth, in the face of continuous precipitation, experts put forward management suggestions for corn. Spring corn in Henan Province was in the filling stage, and summer corn was mostly in the small trumpet stage. Continuous precipitation was easy to cause field waterlogging, which had a great impact on roots. At the same time, insufficient light affected leaf photosynthesis, resulting in insufficient filling and slow growth of spring corn. Therefore, in the face of continuous heavy rainfall, it was necessary to ensure that the drainage ditches in the field were unblocked. When the field operation can be carried out after the precipitation, it was necessary to disperse the soil moisture in time, and apply 37-49 kg of urea per ha to promote the recovery of plant growth. If spring sown fresh corn reaches milk ripening period, it should be harvested in time.

Heavy rain weather should be prevented in Jiangsu Province

According to the forecast of meteorological department on 20 July in Jiangsu Province, there will be heavy rain in the south of Huaihe River in late July and early August. During the heavy rainfall period, there will be strong convective weather in Jiangsu Province, such as large-scale strong lightning, short-term heavy rainfall and 8-10 level thunderstorms and gales, which may have an adverse impact on agricultural production. Agricultural and rural departments at all levels should pay close attention to the meteorological conditions, timely guide farmers to support and dredge the furrow system of rice, corn, vegetables and other crops, dispatch and arrange drainage equipment, and ensure that field is dry when the rain stops and the accumulated water is removed in time. The key field management measures should be formulated in time. According to the situation of fertilizer loss and seedling growth, acting foliar fertilizer should be applied in time to raise roots and protect leaves, in order to promote the recovery of growth. The ripe ears, pods and fresh fruits should be harvested in time. It is necessary to strengthen the monitoring of diseases and insect pests, control rice sheath blight, leaf rice blast, rice plant hoppers and rice leaf rollers and so on.



Import and export

China's export of corn seed in June, 2021 down MoM

Summary: According to China Customs, China's export of corn seed in June, 2021 went down MoM. Specifically, China imported 1,893 kg of corn seed in June, 2021, with the value of USD81,464, up significantly by 234.06% MoM. China exported 16,433kg of corn seed in June, 2021, with the value of USD96,615, down by 79.55% and 15.04% MoM.

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6.1-3 Import and export of corn seeds in China in June 2021

Trade	Jun-21		May-21		MoM changes	
	Volume, kg	Value, USD	Volume, kg	Value, USD	Volume	Value
Export	16,433	96,615	80,375	113,723	-79.55%	-15.04%
Import	1,893	81,464	2,057	24,386	-7.97%	234.06%

Source: China Customs

In terms of import origin, China imported corn seed from 4 countries and regions in June, 2021. Specifically, Chile was the largest import origins with the import volume and value accounting for 79.61% and 92.03% of the total ones.

In terms of importer, altogether 4 province and cities in China imported corn seed in June, 2021. Shanghai was the largest importer with its import value accounting for 81.76% of the total one.

6.1-5 Import origins of corn seeds in China in June 2021

No.	Import origin	Volume, kg	Value, USD
1	Chile	1,507	74,974
2	Malaysia	200	4,744
3	Brazil	126	1,326
4	Cote d'Ivoire	60	420
Total	/	1,893	81,464

Source: China Customs

6.1-6 Import origins of corn seeds in China in June 2021

No.	Importer	Volume, kg	Value, USD
1	Shanghai	1,000	66,605
2	Beijing	250	7,920
3	Shandong Province	457	5,193
4	Heilongjiang Province	186	1,746
Total	/	1,893	81,464

Source:China Customs

In terms of export destination, China exported corn seed to 5 countries and regions in June, 2021, including Vietnam, Uganda, Zimbabwe, Togo and Kazakhstan. Vietnam was the biggest importer of China's corn seed with the value accounting for 99.36% of the total one.

In terms of exporter, 3 provinces and cities exported corn seed in June, 2021, including Beijing, Sichuan Province and Anhui Province. Beijing was the largest exporter with its value accounting for 99.36% of the total one.

6.1-8 Export destination of corn seeds from China in June 2021

No.	Export destination	Volume, kg	Value, USD
1	Vietnam	16,000	96,000
2	Uganda	120	600
3	Zimbabwe	65	6
4	Togo	240	5
5	Kazakhstan	8	4
Total	/	16,433	96,615

Source:China Customs



6.1-9 Exporter of corn seeds in China in June 2021

No.	Exporter	Volume, kg	Value, USD
1	Beijing	16,000	96,000
2	Sichuan Province	120	600
3	Anhui Province	313	15
Total	/	16,433	96,615

Source: China Customs





Price update

Domestic quotations of corn seeds in July 2021

7.1-1 Domestic quotations of corn seeds in July 2021

No.	Variety	Price	
		USD/kg	RMB/kg
1	Wannuo 2000	11.22	72.60
2	Luoyu 16	4.95	32.00
3	Liyu 11	13.23	85.60

Source:CCM



Journalist : Yimin Luo, Weimin Chen

Editor : Yinghui He

Chief Editor : Anton

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17th Floor, Huihua Commercial & Trade Building, No.80 Xianliezhong Road Guangzhou, 510070, P.R.China

Tel: +86-20-37616606

Fax: +86-20-37616768

E-mail: econtact@cnchemicals.com

Website: www.cnchemicals.com