

## Report of the Development of the Sunflower Industry in China

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### I. Summary of development of the sunflower confectionery industry

After going through a rapid seventeen-years development period, the sunflower industry in China is presently ranked at the top in the world in five areas. **First**, annual average planted area of the domestic confectionery sunflower has been maintained between 1.32 and 1.65 million acres, the largest confection sunflower production in the world. **Second**, the seed business of the confectionery sunflower in China has an annual value of 1 billion Yuan, while the farmers' seed production is valued at 10 billion Yuan, and the consumed roasted sunflower seed has a value of 40 billion Yuan, making China the largest consumer in the world in this section. **Third**, the export volume of confectionery sunflower in 2016 amounted to 0.30 million tons, and 0.41 million tons in 2017, showing an upward yearly trend, making China the largest confectionery sunflower exporting nation in the world. **Fourth**, the representative Chinese confectionery sunflower hybrids, SH361 and SH363, possess the top-ranking technological standards and economic value in the world. **Fifth**, population working on confection sunflower production and related business has reached one million, making China the country with the largest employee of people working in the sunflower business. In conclusion, the confectionery sunflower of China ranks No.1 in five areas, including planted area, consumption, exporting, scientific research standards, and number of employees. China has rapidly become the center of worldwide attention for its confection sunflower industry.

### II. Confectionery sunflower planting and general production in China in 2016 and 2017

1. Planted area: planted area of confectionery sunflower was about 1.89 and 1.25 million acres in 2016 and 2017, respectively.

2. Production: total production of confectionery sunflower were 2.0 and 1.5 million tons in 2016 and 2017, respectively.

3. Export trade: sunflower seed exports in China were 0.30 and 0.40 million tons in 2016 and 2017, respectively.

### **III. Cultivation and production of Chinese confectionery sunflower in 2018**

#### **1. Planted area and variety utilization**

In 2018, the confectionery sunflower planted area is projected to be about 1.17 million acres, mainly distributed in Inner Mongolia, Xinjiang, Gansu as well as provinces in northeast China. Inner Mongolia is still the largest confectionery sunflower production area of China with 0.89 million acres, 75.5% of China's total sunflower production.

In 2018, varieties for confectionery sunflower planted were still primarily SH363, SH361 and 601 series, with 33% of SH363, 41% of SH361, 10% of SH601, and ~16% of others.

Hetao region of Inner Mongolia occupies about 0.60 million acres with main sunflower varieties SH361 and SH601. Chifeng City and its peripheral regions plants about 0.15 million acres with the majority of varieties SH363 (90%). Ulanqab and the surrounding regions occupies a total of 0.12 million acres mainly with varieties SH363, T339 and 3167 planted. Xinjiang has a planted area of about 0.20 million acres. The Changji area plants varieties SH363, SH361, and Xianrui No.7, while in the Altay area varieties SH361 and SH363 are planted.

The planted acres of Gansu are about 0.02 million acres, mainly in Wuwei with varieties SH363.

The planted acres of Shanxi are about 0.03 million acres with the majority of varieties SH363 and 601.

The planted areas of northeast China are 0.04 million acres, mainly planting varieties SH363 and Fengkui.

## 2. Commodity production and quality

Due to dry weather at the early growth stage of sunflowers, in 2018, pathogen infection, pest incursion, and weed invasion occurred earlier than those in the year of 2017. A number of disease and pests such as leaf spot and moths occurred in particular areas. Broomrape were discovered as early as the time when plants were 30cm height. However, climate condition at the medium development stage was favorable, making promising prospect for yield and seed quality at the later development stage. Facilitated by the promotion of new varieties and optimized cultivation techniques, average yield will remain stable to a certain extent, while higher quality of commodity is expected. The common seed price of variety SH363 is estimated at about 7-8 Yuan/kilo, and high-end seed at about 11-13 Yuan/kilo. For variety SH361, the price of common seed is estimated at about 6-7 Yuan/kilo, and high-end seed at about 8 yuan/kilo, while the variety 601 remains at 7-8 yuan/kilo. The high-end quality seed is mainly from areas like Chifeng of Inner Mongolia and Altay of Xinjiang.

## 3. Export trade

In 2018, the production of confectionery sunflower is expected to be up to 1.35 million tons, with about 30%, or about 0.41 million tons exported to the Middle East and Europe.

## IV. Issues and suggestions for the sunflower seed industry

Firstly, With the lack of rotation, sunflower production and quality shows the trend of deterioration, affecting growers' incomes seriously.

Secondly, over recent years, Broomrape tends to spread quickly, which has caused loss of capability to growing sunflowers for nearly 0.08 million acres, and resulted in production loss of 0.03 million tons.

Further, *Sclerotinia* affected the land of nearly 0.06 million acres with the loss of capability to growing sunflowers and resulted in production loss of ~6800 tons. A new disease named grain watermark strongly affects

seed quality which is expected to be a main restrict for sustainable development of sunflower business.

China is facing the same issues in sunflower business as those in the rest of the world. We, the community of sunflower industry, should closely collaborate, actively integrate the innovation resources, continuously develop new varieties with the traits of high yield, high disease resistance and superior quality; meanwhile, we should further improve cultivation technologies to increase the growers' profit, and eventually promote the sustainable and healthy development of the sunflower industry.

## 2018年中国食葵产业发展报告

三瑞农业科技股份有限公司  
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### 一、中国食葵产业发展概况

中国向日葵产业经过 17 年的高速发展，目前在五个方面居世界领先水平。一是中国食葵年均种植面积保持在 800-1000 万亩左右，已成为世界最大的食葵种植国；二是中国食葵种子年均营业额达 10 亿元左右，农民种植的食葵商品每年的营业额达 110 亿元，炒货加工完成后食葵消费年营业额达 400 亿元，已成为世界最大的食葵消费国；三是中国食葵商品出口呈逐年上升趋势，中国已成为世界最大的食葵出口国；四是以 SH363、SH361 为代表的杂交食葵种子，科技含量和经济价值居领先水平；五是全国从事食葵种植及相关服务的人员达百万，产业从业人数居世界第一。中国食葵产业在种植面积、消费能力、出口贸易、科研水平和从业人数等五个方面居世界领先水平，中国向日葵产业对世界向日葵产业影响力与日俱增。

### 二、2016 年、2017 年食葵种植生产概况

1.种植面积：2016 年中国食葵种植面积达 1150 万亩，2017 年为 760 万亩。

2.总产量：2016 年中国食葵总产量约 200 万吨，2017 年约 152 万吨。

3、出口贸易：2016 年我国食葵商品出口量达 30 万吨，2017 年达 40.96 万吨。

### 三、2018 年中国食葵种植生产基本情况

**1.种植面积及品种使用情况:** 经调查统计, 2018 年中国食葵种植面积约 711.9 万亩, 主要分布在内蒙古、新疆、东北、山西、甘肃等地区。内蒙古依然是中国最大的食葵种植区, 种植面积约 537.5 万亩, 占全国种植面积的 75.5%。

2018 年中国食葵种植品种主要以 363 系列、361 系列和 601 系列为主。经统计, 363 系列占种植面积的 33%, 361 系列占 41%, 601 系列占 10%, 其他品种占 16%。

内蒙古河套地区种植面积约 367 万亩, 种植品种以 361、601 为主。赤峰及周边地区种植面积约 95 万亩, 363 品种占有率达 90% 以上。乌兰察布及周边地区种植面积约 75.5 万亩, 种植品种以 363、T339、3167 等品种为主。新疆种植面积约 125 万亩。昌吉地区种植品种以 363、361、三瑞 7 号为主; 阿勒泰地区种植品种以 363、361 为主。

甘肃地区种植面积约 11 万亩。主要集中在武威地区, 种植品种以 363 为主。

山西地区种植面积约 15.4 万亩, 种植品种以 363、601 为主。

东北地区种植面积约 23 万亩, 种植品种以 363 和丰葵杂等品种为主。

## **2.产量、品质等情况:**

2018 年由于向日葵生长前期气候干旱, 病虫草害发生时间较早, 叶斑病、葵螟、草地螟、粘虫、棉铃虫等病虫草害在局部地区均有发生。列当在向日葵植株 30cm 时已发生, 较 2017 年相比发生较早。向日葵生长中期气候适宜, 对向日葵后期的产量和品质较为有利。在新品种推广和成熟栽培技术的带动下, 预计亩均产量将保持相对稳定, 商品品质预计好于往年, SH363 系列商品普货价格预计平均为 7-8 元/公斤, 高端原料价格预计平均为 11-13 元/公斤; SH361 系列商品普货价格预计为 6-7 元/公斤, 高端原料价格预计平均为 8 元/

公斤左右；601系列商品价格保持在7-8元/公斤左右。高端原料产区主要集中在内蒙古赤峰市和新疆阿勒泰等地区。

**3.出口贸易：**2018年中国葵花籽产量预计达到135万吨，预计出口量41万吨左右，占全年产量的30%左右，主要销往中东、欧洲等地区。

#### 四、产业发展存在的问题及建议

一是由于连年重茬种植，导致向日葵产量、品质下降，影响了种植户的收益。

二是向日葵列当近年来呈大面积蔓延趋势，造成近50万亩土地无法种植向日葵，每年造成的商品损失近3万吨。菌核病的发生造成近100万亩土地无法种植向日葵，每年造成商品损失近6800吨。水锈病的频繁发生影响了葵花籽商品品质，制约了向日葵产业的持续健康发展。

中国向日葵产业面临的问题也是世界向日葵产业所面对的共同难题，产业界应当继续深化交流合作，积极整合科技创新资源，不断培育高产、高抗、商品优势突出的新品种，推广先进的田间栽培管理技术，增加种植户的经济效益，推动产业持续健康发展。