# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headline</td>
<td>3</td>
</tr>
<tr>
<td>Notice of Column Adjustment</td>
<td>5</td>
</tr>
<tr>
<td>Editor's Note</td>
<td>6</td>
</tr>
<tr>
<td>Global Dynamics</td>
<td>6</td>
</tr>
<tr>
<td>Monsanto’s net profit of Q3 FY 2014 down by 5.61% year on year</td>
<td>6</td>
</tr>
<tr>
<td>Dupont’s operating earnings of agriculture in Q2 2014 down by 11.16%</td>
<td>8</td>
</tr>
<tr>
<td>Policy Dynamics</td>
<td>9</td>
</tr>
<tr>
<td>Central government supports to establish 220 breeding bases</td>
<td>9</td>
</tr>
<tr>
<td>Seed green channel boosts Chinese seed industry</td>
<td>9</td>
</tr>
<tr>
<td>MOA advances new round of seed industry structural reform</td>
<td>10</td>
</tr>
<tr>
<td>Company Dynamics</td>
<td>10</td>
</tr>
<tr>
<td>Longping High-Tech’s net profit declines by 26.63% year on year in H1 2014</td>
<td>10</td>
</tr>
<tr>
<td>Hefei Fengle’s net profit increases by 8.31% year on year in H1 2014</td>
<td>12</td>
</tr>
<tr>
<td>Hefei Fengle holds fourth conference of Science and Technology Awards</td>
<td>14</td>
</tr>
<tr>
<td>Gansu Dunhuang approved to set up academician and expert workstation</td>
<td>15</td>
</tr>
<tr>
<td>Grand Agriseeds to losses USD3 million in super typhoon</td>
<td>15</td>
</tr>
<tr>
<td>China’s Seed Market</td>
<td>16</td>
</tr>
<tr>
<td>MOA seizes over 4 million kg of fake seeds in H1 2014</td>
<td>16</td>
</tr>
<tr>
<td>National Exchange Center for IPR of Technological Achievements in Seed Industry launches officially</td>
<td>16</td>
</tr>
<tr>
<td>Food Crop Seed Market</td>
<td>17</td>
</tr>
<tr>
<td>Four enterprises and institutions to build New Danchuan corn jointly</td>
<td>17</td>
</tr>
<tr>
<td>Construction of China regional test station for potato variety finishes</td>
<td>17</td>
</tr>
<tr>
<td>Hunan Province supervises low-cadmium-accumulation rice seed production</td>
<td>18</td>
</tr>
<tr>
<td>Vegetable Seed Market</td>
<td>18</td>
</tr>
<tr>
<td>Cucumber seeds’ market share of Tianjin Kernel surpasses 30%</td>
<td>18</td>
</tr>
<tr>
<td>Shanghai Zhongdu builds biggest vegetable breeding platform in Shanghai</td>
<td>18</td>
</tr>
<tr>
<td>Genome of wild tomato species helps to cultivate new varieties</td>
<td>19</td>
</tr>
<tr>
<td>Chinese first three-line new variety of aerospace pepper comes out in Tianshui City</td>
<td>19</td>
</tr>
<tr>
<td>Hefei Fengle’s profitability on vegetable seed business in 2013 witnesses decline</td>
<td>19</td>
</tr>
<tr>
<td>Profitability of Longping High-Tech’s vegetable seed business decreases in 2013</td>
<td>21</td>
</tr>
<tr>
<td>Winall Hi-Tech: revenue from vegetable seed business tumbles by 44% in 2013</td>
<td>23</td>
</tr>
<tr>
<td>Shandong Denghai’s vegetable seed business maintains momentum in 2013</td>
<td>25</td>
</tr>
<tr>
<td>Grand Agriseeds’ profitability on vegetable seed business declines sharply in 2013</td>
<td>27</td>
</tr>
<tr>
<td>Industrial Crop Seed Market</td>
<td>29</td>
</tr>
<tr>
<td>Gansu Province to study sunflower highly resistant to saline soil</td>
<td>29</td>
</tr>
<tr>
<td>Xinluzhong 37: largest conventional land cotton variety in Southern Xinjiang</td>
<td>29</td>
</tr>
<tr>
<td>Industrial crop seed business becomes highlight of Hefei Fengle’s performance in 2013</td>
<td>30</td>
</tr>
<tr>
<td>Industrial crop seed business of Longping High-Tech turns losses into gains in 2013</td>
<td>31</td>
</tr>
<tr>
<td>Winall Hi-Tech: industrial crop seed business develops steadily in 2013</td>
<td>33</td>
</tr>
<tr>
<td>Grand Agriseeds’ revenue from industrial crop seed business in 2013 declines apparently</td>
<td>35</td>
</tr>
<tr>
<td>Forage Crop Seed Market</td>
<td>37</td>
</tr>
<tr>
<td>China cultivates its first space-flight mutation pasture</td>
<td>37</td>
</tr>
<tr>
<td>Other Crop Seed Market</td>
<td>39</td>
</tr>
<tr>
<td>Tobacco seeds help make jet fuel</td>
<td>39</td>
</tr>
<tr>
<td>Shandong Denghai’s profitability on flower seed business witnesses a YoY decrease in 2013</td>
<td>39</td>
</tr>
<tr>
<td>GM Crop</td>
<td>41</td>
</tr>
<tr>
<td>Illegal GM rice seeds appear in markets in Hubei Province</td>
<td>41</td>
</tr>
<tr>
<td>Brief news</td>
<td>42</td>
</tr>
<tr>
<td>Cotton Seed Industry Chapter of CNSA established in Hohhot City</td>
<td>42</td>
</tr>
<tr>
<td>Significant innovation achievement in Henan Province’s large bulk vegetable industry</td>
<td>42</td>
</tr>
<tr>
<td>Shandong’s five moves to reform fine seeds project</td>
<td>43</td>
</tr>
<tr>
<td>Chongqing City’s display and demonstration of new crops varieties present four highlights</td>
<td>44</td>
</tr>
<tr>
<td>Correction</td>
<td>44</td>
</tr>
</tbody>
</table>
Monsanto's sales in Q3 FY 2014 reached USD4,250 million, generally flat compared with the corresponding period of last year. But its net profit in Q3 FY 2014 fell by 5.61%. Sales of the Seeds and Genomics segment slightly fell by 0.46%.

The National Guidelines on the Experimentation of the Green Channel for Rice and Corn Varieties Examination (trial implemented version), issued by the variety examination committee of the MOA, is beneficial to stimulate the development of Chinese large-scale seed enterprises and further raise the concentration of Chinese seed industry.

In H1 2014, Longping High-Tech gained a revenue of USD117.92 million (RMB726.56 million), declining by 14.08% year on year; the net profit was USD19.58 million (RMB120.56 million), declining by 26.63% compared with the same period of last year.

Hefei Fengle claims that the company has reached a revenue of USD100.49 million (RMB619.20 million) with a YoY decrease rate of 4.93% in H1 2014. The net profit was USD2.36 million (RMB14.54 million) with a YoY growth rate of 8.31%.

Hefei Fengle's revenue from its vegetable seed business in 2013 reached USD4.81 million, accounting for 4% of Hefei Fengle's revenue from its seed businesses, no changes compared with that of 2012. However, the gross profit and the gross profit margin for its vegetable seed business in 2013 was the lowest for the period 2009-2013. This indicates that the profitability of Hefei Fengle's vegetable seed business declined during 2013.

In 2013, Longping High-Tech's revenue from vegetable seed business was USD 4.37 million (RMB 26.91 million), which decreased by 16% year on year; the gross profit was USD1.51 million (RMB9.29 million), which decreased by 21% year on year. Revenue, gross profit and the gross profit margin of Longping High-Tech's vegetable seed business in 2013 all hit the lowest within the five years from 2009 to 2013. It shows that Longping High-Tech's vegetable seed business has been decreased in profitability.

In 2013, Longping High-Tech's revenue from vegetable seed business was USD 4.37 million (RMB 26.91 million), which decreased by 16% year on year; the gross profit was USD1.51 million (RMB9.29 million), which decreased by 21% year on year. Revenue, gross profit and the gross profit margin of Longping High-Tech's vegetable seed business in 2013 all hit the lowest within the five years from 2009 to 2013. It shows that Longping High-Tech's vegetable seed business has been decreased in profitability.

Grand Agriseeds’ revenue from its vegetable seed business in 2013 reached USD0.33 million (RMB2.06 million), sharply declining by 85% year on year; and its net profit was USD0.08 million (RMB0.50 million), sharply declining by 90% year on year.

Hefei Fengle's revenue from its industrial crop seed business in 2013 reached USD13.64 million (RMB84.00 million), increasing by 88% year on year, which was the highest revenue from its industrial crop seed business from 2009 to 2013. This shows that industrial crop seed business is playing a more and more important role in Hefei Fengle's seed business.

The gross profit of Longping High-Tech's industrial crop seed business was USD0.70 million (RMB4.32 million), which increased by USD0.83 million (RMB5.09 million) year on year. In 2013, Longping High-Tech's industrial crop seed business turned losses into gains.

In 2013, Longping High-Tech's revenue from vegetable seed business was USD 4.37 million (RMB 26.91 million), which decreased by 16% year on year; the gross profit was USD1.51 million (RMB9.29 million), which decreased by 21% year on year. Revenue, gross profit and the gross profit margin of Longping High-Tech's vegetable seed business in 2013 all hit the lowest within the five years from 2009 to 2013. It shows that Longping High-Tech's vegetable seed business has been decreased in profitability.

In 2013, Longping High-Tech's revenue from vegetable seed business was USD 4.37 million (RMB 26.91 million), which decreased by 16% year on year; the gross profit was USD1.51 million (RMB9.29 million), which decreased by 21% year on year. Revenue, gross profit and the gross profit margin of Longping High-Tech's vegetable seed business in 2013 all hit the lowest within the five years from 2009 to 2013. It shows that Longping High-Tech's vegetable seed business has been decreased in profitability.

Grand Agriseeds’ revenue from its vegetable seed business in 2013 reached USD0.33 million (RMB2.06 million), sharply declining by 85% year on year; and its net profit was USD0.08 million (RMB0.50 million), sharply declining by 90% year on year.

Hefei Fengle's revenue from its industrial crop seed business in 2013 reached USD13.64 million (RMB84.00 million), increasing by 88% year on year, which was the highest revenue from its industrial crop seed business from 2009 to 2013. This shows that industrial crop seed business is playing a more and more important role in Hefei Fengle's seed business.

The gross profit of Longping High-Tech's industrial crop seed business was USD0.70 million (RMB4.32 million), which increased by USD0.83 million (RMB5.09 million) year on year. In 2013, Longping High-Tech's industrial crop seed business turned losses into gains.

In 2013, Longping High-Tech's revenue from vegetable seed business was USD 4.37 million (RMB 26.91 million), which decreased by 16% year on year; the gross profit was USD1.51 million (RMB9.29 million), which decreased by 21% year on year. Revenue, gross profit and the gross profit margin of Longping High-Tech's vegetable seed business in 2013 all hit the lowest within the five years from 2009 to 2013. It shows that Longping High-Tech's vegetable seed business has been decreased in profitability.

Grand Agriseeds’ revenue from its vegetable seed business in 2013 reached USD0.33 million (RMB2.06 million), sharply declining by 85% year on year; and its net profit was USD0.08 million (RMB0.50 million), sharply declining by 90% year on year.

Hefei Fengle's revenue from its industrial crop seed business in 2013 reached USD13.64 million (RMB84.00 million), increasing by 88% year on year, which was the highest revenue from its industrial crop seed business from 2009 to 2013. This shows that industrial crop seed business is playing a more and more important role in Hefei Fengle's seed business.

The gross profit of Longping High-Tech's industrial crop seed business was USD0.70 million (RMB4.32 million), which increased by USD0.83 million (RMB5.09 million) year on year. In 2013, Longping High-Tech's industrial crop seed business turned losses into gains.

In 2013, Winall Hi-Tech gained a revenue of USD0.82 million (RMB5.04 million) from its industrial crop seed business, down by 5% year on year and a gross profit of USD0.32 million (RMB1.97 million), up by 1% year on year. From a general view, the industrial crop seed business of Winall Hi-Tech in 2013 witnessed a steady development.

Grand Agriseeds’ revenue from its industrial crop seed business was USD2.48 million (RMB15.26 million), declining by 29.00% year on year; its net profit reached USD0.87 million (RMB5.35 million), declining by 23.00% year on year. In general, Grand Agriseeds' profitability of its industrial crop seed business in 2013 declined year on year.

Lanzhou Institute of Husbandry and Pharmaceutical Sciences of CAAS has successfully cultivated a new variety of multifoliaolate alfalfa, Hangmu No.1 alfalfa, by space-flight mutation breeding technology.

In 2013, Shandong Denghai's revenue from flower seed and seedling business reached USD0.65 million (RMB4.02 million), down by 30.0% year on year and it also gained a gross profit of USD0.45 million (RMB2.75 million), down by 21.0% year on year. From a general view, the profitability of Shandong Denghai's flower seed and seedling business slightly shrunk in 2013.

It is exposed that some illegal GM rice seeds with Bt63 were sold in Wuhan City, Hubei Province. However, only cotton and papaya these two GM crops are approved to be commercially cultivated in China and only five kinds of crops, including soybean, corn, cotton, rape and beet, are approved to be imported and used as processing materials.
**Notice of Column Adjustment**

In consideration of wide variety of seeds, the column of Seed China News of CCM will be adjusted since Issue 1407 so as to deliver market dynamics of seeds more conveniently and rapidly. In detail, we will newly-add five columns of Food Crop Seed Market, Vegetable Seed Market, Industrial Crop Seed Market, Forage Crop Seed Market and Other Crop Seed Market. Food Crop Seed Market covers market dynamics of food crops seed, including three kinds of seeds: cereal seed, including paddy, wheat, barley, oats, corn, kaoliang and so on; tuber crop seed, including potato, sweet potato, cassava and so on; pulse crop seed, including vicia faba, pea, mung bean and so on. Vegetable Seed Market covers market dynamics of vegetable seed, including various vegetable seeds such as carrot, broccoli, cucumber, cayenne, eggplant, rape, onion, balsam pear, pumpkin and so on. Industrial Crop Seed Market covers market dynamics of industrial crops seed, including three kinds of seeds, such as fiber crop seed, oil crop seed and sugar crop seed. Forage Crop Seed Market reports market covers market dynamics of forage crops seed, including clover, three-leaf clover and so on. Other Crop Seed Market covers other crops seed market dynamics besides those included in the four columns above. For example, beverage crop seed, flower seed, fruit tree seed, wood seed and so on.
Editor’s Note

Though good in R&D and promotion on grain crop seeds, especially on rice seeds, China’s R&D and promotion on vegetable seeds are not satisfying. China’s seed industry has already recognized this and is making continuous efforts to change this situation, hoping to gain breakthrough in R&D and promotion on vegetable seeds. Taking Shanghai Zhongdu as an example, it displayed many vegetable varieties in the vegetable achievement exhibition in Shanghai Zhongdu Vegetable Science & Technology Industrial Park in July 2014. Major varieties were over 30 kinds of conventional and new special vegetables including tomato, pepper, bitter gourd, cucumber, cowpea, lettuce, green cabbage and red okra.

Note: 1. All tables and figures in this issue are calculated by the same RMB/USD exchange rate (1USD=6.1615RMB); 2. Nuances in some data are mainly caused by rounding principle.

Global Dynamics

Monsanto’s net profit of Q3 FY 2014 down by 5.61% year on year

Summary: Monsanto’s sales in Q3 FY 2014 reached USD4,250 million, generally flat compared with the corresponding period of last year. But its net profit in Q3 FY 2014 fell by 5.61%. Sales of the Seeds and Genomics segment slightly fell by 0.46%.

In the third quarter of FY 2014 (1 March, 2014–31 May, 2014, Q3 FY 2014), Monsanto’s sales reached USD4,250 million, generally flat compared with the corresponding period of last year. But its net profit fell by 5.61% to USD858 million. Sales in the Seeds and Genomics segment slightly fell by 0.46% to USD3,040 million; sales of pesticide rose by 1.34% to USD1,210 million.

For the first nine months of FY 2014 (1 Sept., 2013–31 May, 2014), the total sales of Monsanto increased by 4.47% to USD13,225 million. Its net profit increased by 6.04% to USD2,896 million. Sales in the Seeds and Genomics segment rose by 2.28% to USD9,364 million; agrochemicals sales reached USD3,861 million with an increase of 10.19%.

According to the performance of FY 2014, the Seeds and Genomics segment remains an integral part of long-term growth targets. Monsanto expects the Seeds and Genomics segment drives a majority of the targeted five-year growth by contributing more than USD4 billion in total incremental gross profit in that period. The company remains on track for the fastest ever ramp up of a soybean trait. With an early view on supply, Monsanto expects Intacta RR PRO® soybean acreage in Latin America to increase by three-to-four times over the launch volume, reaching 10 to 12 million acres in fiscal year 2015. The company also continues to make strong progress across its new Climate Corporation platform. The company’s suite of offerings has been stronger than originally projected, with more than 40 million installed acres of the Climate BasicTM tool and more than a million acres of premium services like Climate PROTM and FieldScripts® expected.

In FY 2014, despite lower planted corn acres and global currency headwinds, the company's global corn portfolio continues to be one of the company's most important ongoing drivers. It is expected that the company's total sales and profit margin will increase in 2014.
Table 1: Monsanto’s operating performance in Q3 2013/2014

<table>
<thead>
<tr>
<th>Item</th>
<th>Seeds and Genomics segment</th>
<th>Agricultural Productivity segment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q3 2014, million USD</td>
<td>Q3 2013, million USD</td>
<td>Q3 2014, million USD</td>
</tr>
<tr>
<td>Net sales</td>
<td>3,040</td>
<td>3,054</td>
<td>-0.46%</td>
</tr>
<tr>
<td>Gross profit</td>
<td>1,855</td>
<td>1,815</td>
<td>2.20%</td>
</tr>
<tr>
<td>Net profit</td>
<td>1,185</td>
<td>1,139</td>
<td>-4.00%</td>
</tr>
</tbody>
</table>


Source: Monsanto

Table 2: Monsanto’s operating performance in seeds and genomics segment in Q3 2013/2014

<table>
<thead>
<tr>
<th>Item</th>
<th>Net Sales</th>
<th>Gross Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q3 2014, million USD</td>
<td>Q3 2013, million USD</td>
</tr>
<tr>
<td>Corn Seed and Traits</td>
<td>1,303</td>
<td>1,559</td>
</tr>
<tr>
<td>Soybean Seed and Traits</td>
<td>816</td>
<td>658</td>
</tr>
<tr>
<td>Cotton Seed and Traits</td>
<td>401</td>
<td>385</td>
</tr>
<tr>
<td>Vegetable Seeds</td>
<td>221</td>
<td>216</td>
</tr>
<tr>
<td>All Other Crops Seeds and Traits</td>
<td>299</td>
<td>236</td>
</tr>
<tr>
<td>Total Seeds and Genomics segment</td>
<td>3,040</td>
<td>3,054</td>
</tr>
</tbody>
</table>


Source: Monsanto

Table 3: Monsanto’s operating performance in the first nine Months 2013/2014

<table>
<thead>
<tr>
<th>Item</th>
<th>Seeds and Genomics segment</th>
<th>Agricultural Productivity segment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>9,364</td>
<td>9,155</td>
<td>2.28%</td>
</tr>
<tr>
<td>Gross profit</td>
<td>5,853</td>
<td>5,539</td>
<td>5.67%</td>
</tr>
<tr>
<td>Net profit</td>
<td>4,511</td>
<td>3,526</td>
<td>-27.31%</td>
</tr>
</tbody>
</table>

Note: Nine Months 2014 refers to the first nine months of fiscal year 2014 (1 Sept., 2013-31 May, 2014) of fiscal year 2013 (1 Sept., 2012-31 May, 2013).

Source: Monsanto
Table 4: Monsanto’s operating performance in seeds and genomics segment in Nine Months 2013/2014

<table>
<thead>
<tr>
<th>Item</th>
<th>Net Sales</th>
<th>Gross Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nine Months 2014</td>
<td>Nine Months 2013</td>
</tr>
<tr>
<td></td>
<td>USD</td>
<td>USD</td>
</tr>
<tr>
<td></td>
<td>YoY change</td>
<td>YoY change</td>
</tr>
<tr>
<td>Corn Seed and Traits</td>
<td>5,771</td>
<td>5,978</td>
</tr>
<tr>
<td></td>
<td>-3.46%</td>
<td>3,654</td>
</tr>
<tr>
<td></td>
<td>3,628</td>
<td></td>
</tr>
<tr>
<td>Soybean Seed and Traits</td>
<td>1,903</td>
<td>1,506</td>
</tr>
<tr>
<td></td>
<td>21.52%</td>
<td>1,205</td>
</tr>
<tr>
<td></td>
<td>911</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32.27%</td>
<td></td>
</tr>
<tr>
<td>Cotton Seed and Traits</td>
<td>587</td>
<td>630</td>
</tr>
<tr>
<td></td>
<td>-6.83%</td>
<td>424</td>
</tr>
<tr>
<td></td>
<td>466</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-9.01%</td>
<td></td>
</tr>
<tr>
<td>Vegetable Seeds</td>
<td>597</td>
<td>571</td>
</tr>
<tr>
<td></td>
<td>4.55%</td>
<td>271</td>
</tr>
<tr>
<td></td>
<td>252</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-3.90%</td>
<td></td>
</tr>
<tr>
<td>All Other Crops Seeds and Traits</td>
<td>506</td>
<td>410</td>
</tr>
<tr>
<td></td>
<td>23.41%</td>
<td>299</td>
</tr>
<tr>
<td></td>
<td>252</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18.65%</td>
<td></td>
</tr>
<tr>
<td>Total Seeds and Genomics segment</td>
<td>9,364</td>
<td>9,155</td>
</tr>
<tr>
<td></td>
<td>2.28%</td>
<td>5,853</td>
</tr>
<tr>
<td></td>
<td>5,539</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.67%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Nine Months 2014 refers to the first nine months of fiscal year 2014 (1 Sept., 2013-31 May, 2014) and Nine Months 2013 refers to the first nine months of fiscal year 2013 (1 Sept., 2012-31 May, 2013).

Source: Monsanto

Dupont’s operating earnings of agriculture in Q2 2014 down by 11.16%

On 22 July, 2014, Dupont released its performance report in Q2 2014. In Q2 2014, the net sales of Dupont reached USD9,706 million, down 1.40% year on year while the net income reached USD1,074 million, up 3.87% year on year. Among the total net sales, that of agriculture reached USD3,615 million, down 0.44% year on year and the operating earnings of agriculture reached USD836 million, down 11.16% year on year. The reasons of the decline in operating earnings of agriculture were lower corn seed volumes, lower North America herbicide volumes and higher seed inventory write-downs. This was partially offset by higher seed prices, higher insecticide volumes, higher soybean volumes and lower seed input costs. At present, Dupont is in process of transition towards new efficient soybean production. By then, the performance of corn seed business, which accounts for half of the total net sales of Dupont will meet a downturn while the next generation of soybean products will meet a strong demand from markets. Dupont believes that the current depression of agricultural performance will soon end.

Table 5: Dupont’s operating performance in Q2 2013/2014

<table>
<thead>
<tr>
<th>Item</th>
<th>Agriculture</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q2 2014, million USD</td>
<td>Q2 2013, million USD</td>
</tr>
<tr>
<td>Net Sales</td>
<td>3,615</td>
<td>3,631</td>
</tr>
<tr>
<td>Operating earnings</td>
<td>836</td>
<td>941</td>
</tr>
<tr>
<td>Net Income</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Q2 2014 refers to the second quarter of 2014 (1 April, 2014-30 June, 2014); Q2 2013 refers to th...
**Policy Dynamics**

**Central government supports to establish 220 breeding bases**

In 2014, the Ministry of Finance of the People’s Republic of China allocated agricultural comprehensive development funds of USD66.82 million (RMB411.69 million) to establish 220 breeding bases in 28 provinces (districts or cities) in order to promote abilities of breeding bases and perfect the breeding system. The main contents include land leveling, land improvement, workshop processing, warehouse construction and equipment purchase and so on.

**Seed green channel boosts Chinese seed industry**

Summary: The *National Guidelines on the Experimentation of the Green Channel for Rice and Corn Varieties Examination (trial implemented version)*, issued by the variety examination committee of the MOA, is beneficial to stimulate the development of Chinese large-scale seed enterprises and further raise the concentration of Chinese seed industry.

On 30 May, 2014, the variety examination committee of the Ministry of Agriculture of the People’s Republic of China (MOA) published the *National Guidelines on the Experimentation of the Greenway for Rice and Corn Varieties Examination (trial implemented version) (Guidelines)*. It is another policy in support of Chinese seed industry since the *Seed Law* has been issued by the Chinese government in 2001.

According to the *Guidelines*, there are two regulations about the experimentation of the green channel for rice and corn varieties examination.

1. The seed enterprises that are operated in the way of selective breeding, production and management combined together and meet the requirements of article 16 of the *Measures for the Production, Management and Administration of Crop Seeds* with a registered capital of USD16.23 million (RMB100 million) can conduct regional tests and production tests of their own varieties.

2. The varieties that have passed the provincial examination and have obtained two-year test data of over ten production testing pilots of the same ecological category in the neighbouring provinces, autonomous regions and municipalities are free from regional tests and production tests when applying for the national examination.

Apparently, the *Guidelines* gave convenience to domestic large-scale seed enterprises when they apply for the variety examination: the time for the variety examination has been shortened from 4-5 years in the past to 2-3 years; the commercialisation rate of scientific research expenditure has been sharply increased.

The data of the MOA shows that the number of seed enterprises has decreased from over 8,700 in 2011 to 5,200 in 2014 with a drop rate of 40% owing to the acceleration process of the merger and reorganization of enterprises and the advance in the development of seeds and the production concentration rate. In 2014, China owns 106 seed enterprises with a registered capital of over USD16.23 million (RMB100 million) and the market share of the top 50 seed enterprises takes up over 30% of the total market share. However, the MOA indicates that Chinese seed enterprises still need to massively magnify recapitalisation and business integration in order to strengthen their international competitiveness. The market share of the top 50 seed enterprises is expected to take up over 60% of the total market share by 2020.
MOA advances new round of seed industry structural reform

On 13 Aug., 2014, the National Conference on Modern Seed Industry Development was held in Beijing. At the meeting, Yu Xinrong, vice minister of the Ministry of Agriculture of the People’s Republic of China (MOA), stressed that agriculture departments over the country should race to seize the opportunities and make solid advance in a new round of seed industry structural reform. The reform has a significant and profound impact on the rejuvenation of national seed industry, the aspiration of China becoming a leading seed industry country and the guarantee of national grains safety.

Mr. Yu stressed that governments should focus on the arrangement and implementation of deepening the seed industry structural reform; seize every opportunities to issue the suggestions of the implementation of the structural reform; accelerate the fulfillment of the reform measures; strive for supportive policies of the reform; conscientiously strengthen the joint forces of the reform; spare great effort to support the innovation and development of seed enterprises by supporting the distinct seed enterprises, strict management and enhancing cooperation; improve the ability of tackling key problems of improved varieties and strengthen the management of variety; carry out pilot programs for tackling key problems; consolidate examination of varieties; strengthen the development and demonstration of new varieties; formulate subsidy policies on the new varieties; enhance the construction and management of production bases; provide protection by incorporating the bases that enjoy seeds production superiority into permanent prime farmland; enhance the construction of seed production bases; regulate the management of seed industry, including market supervision, variety rights protection, base supervision, information construction and so forth and strengthen the construction of seed management systems, management teams and industrial styles.

Company Dynamics

Longping High-Tech’s net profit declines by 26.63% year on year in H1 2014

Summary: In H1 2014, Longping High-Tech gained a revenue of USD117.92 million (RMB726.56 million), declining by 14.08% year on year; the net profit was USD19.58 million (RMB120.56 million), declining by 26.63% compared with the same period of last year.

On 6 Aug., 2014, Yuan Longping High-Tech Agriculture Co., Ltd. (Longping High-Tech) issued its 2014 semi-annual report. In the first half of 2014 (H1 2014), Longping High-Tech’s revenue was USD117.92 million (RMB726.56 million), declining by 14.08% compared with the same period of last year; the net profit was USD19.58 million (RMB120.65 million), declining by 26.63% compared with the same period of last year. The main reason for the decline of revenue in H1 2014 was that export trade of agricultural produces processing business of Xinjiang Longping High-Tech Hong’An Seed Co., Ltd. declined sharply. Its revenue in H1 2014 was USD16.64 million (RMB102.54 million), declining by USD18.32 million (RMB112.86 million) with a decrease rate of 52.40% compared with the same period of last year. According to the revenue situation among all regions, sales of Longping High-Tech grew in the fastest ways with a YoY increase of 38.79% in East China. However, in Southwest China, its sales had the greatest decline with a YoY decrease rate of 94.75%. What’s more, in Northwest China, its sales declined by 53.37% year on year.

In H1 2014, among Longping High-Tech’s seed business, the revenue from vegetable seeds went up the most quickly, increasing by 62.94% compared with the same period of last year. The main reason for this was that Longping High-Tech increased input in vegetable seed industry. And the revenue of hybrid rice seed business decreased by 8.8% year on year. But it was not a big decrease. And the revenue of corn seed increased by 43.8% year on year, which was a big increase. The sustainable
The competitiveness and profitability of seed industry depended on the variety advantages it owns. For the aspect of rice seed, there were 20 new rice varieties of Longping High-Tech applying for approval of different levels in H1 2014. And its corn seed business had already increased in H1 2014. Base on this, in the future, the engagement of Beijing Origin Seed Technology Inc. must further effectively supplement the formation of Longping High-Tech’s hybrid corn seed business and strengthen Longping High-Tech’s competitiveness and profitability in corn seed business. However, the revenue from agrochemical industry, pepper and pepper products, and cotton declined by 56.12%, 52.28% and 71.32% respectively year on year.

According to the development situation of Longping High-Tech’s industries, the company will increase input in its major businesses to implement the development strategic of “cluster industry, fade out from extended industry”. With the implementation of the Green Channel Guide for National Rice and Corn Variety Approval (Trial), Longping High-Tech is expected to greatly enhance its effectiveness on scientific research input. In 2014, the company has organized regional trials for five kinds and seven groups of South China photosensitive late indica in order to explore new markets.

Figure 1: Longping Hi-tech’s total revenue and net profit, 2012H1-2014H1, million USD

![Figure 1](image1)

Source: Longping Hi-tech

Figure 2: Longping High-tech’s revenue in six districts, 2012H1-2014H1, million USD

![Figure 2](image2)

Source: Longping Hi-tech
Hefei Fengle’s net profit increases by 8.31% year on year in H1 2014

Summary: Hefei Fengle claims that the company has reached a revenue of USD100.49 million (RMB619.20 million) with a YoY decrease rate of 4.93% in H1 2014. The net profit was USD2.36 million (RMB14.54 million) with a YoY growth rate of 8.31%.

On 31 July, 2014, Hefei Fengle Seed Co., Ltd. (Hefei Fengle) issued its 2014 semi-annual report, claiming that the company has reached a revenue of USD100.49 million (RMB619.20 million) with a YoY decrease rate of 4.93% in the first half of 2014 (H1 2014). The net profit was USD2.36 million (RMB14.54 million) with a YoY growth rate of 8.31%. In particular, its revenue from domestic market increased by 5.25% year on year, but that from the overseas market declined sharply with a YoY decrease rate of 37.52%.

During the report period, revenue and cost of sales from its seed business respectively increased by 9.97% and 53.87% year on year. The larger inventory of rice and corn seeds resulted in the decline of seeds prices, which mainly led to the decline of Hefei Fengle’s gross profit margin from 46.43% to 25.04%. In particular, revenue from corn business declined year by year. In H1 2014, it had a YoY decrease rate of 37.56%. However, revenue from economic crop seeds had a YoY growth of 331.08% which indicates that the product operation of Hefei Fengle may be changed.

In accordance with the development situation of its businesses, Hefei Fengle will focus on the production and management of seed business. Also Hefei Fengle will also digest the inventory, increase the sales volume of new high added-value products, exploit new market and make a breakthrough in marketing service in the second half of 2014.
Figure 4: Hefei Fengle’s total revenue and net profit, 2012H1-2014H1, million USD

Source: Hefei Fengle

Figure 5: Hefei Fengle’s domestic revenue and foreign revenue, 2012H1-2014H1, million USD

Source: Hefei Fengle

Figure 6: Hefei Fengle’s seed operating performance, 2012H1-2014H1
Hefei Fengle holds fourth conference of Science and Technology Awards

On 30 July, 2014, the fourth conference of Science and Technology Awards was held by Hefei Fengle Seed Co., Ltd. (Hefei Fengle) in Fengle Mansion. From 2012 to 2014, 25 new varieties of Hefei Fengle were approved, including six by national authorities and 19 by provincial ones. In addition, nine varieties were protected officially, four patents were submitted and two patents were approved. In agrochemical industry, nine registrations and five production licenses were reached, five patents were submitted and one patent was approved. What’s more, Hefei Fengle took part in the national standard making. During the conference, Hefei Fengle awarded 20 new products and their application including Liang-you 3905, Fengle 21 corn and Tianriu watermelon. In the future, Hefei Fengle will keep on intensifying the scientific research.
Gansu Dunhuang approved to set up academician and expert workstation

On 21 July, 2014, the opening ceremony of academician and expert workstation of Gansu Dunhuang Seed Co., Ltd. (Gansu Dunhuang) was held. The academician and expert workstation hires Dai Jingrui, a national corn genetic breeding expert, a professor from China Agricultural University and also an academician from Chinese Academy of Engineering, as the chief expert of the workstation. On the ceremony, academician Dai Jingrui signed the Cooperation Agreement for Academician and Enterprises with Ma Zonghai, chairman of the board of Gansu Dunhuang Seed Co., Ltd. The workstation works with the basic principle "need as the base, project as the core, enterprise as the main body and actual effectiveness as the root". Relying on such a platform, talents would be further gathered, introduced, and developed. What's more, achievements in scientific research will be actively developed and transformed so as to strengthen the company's scientific and technological innovation capacity and enhance its core competitiveness.

China Association for Science and Technology started to set up academician and expert workstations in 2009. This is a pioneering action to carry forward industry-university-research cooperation. With policy's promotion, enterprises in large scale would put more attention to scientific research, which conforms to future development direction of Chinese seed industry.

Grand Agriseeds to losses USD3 million in super typhoon

On 18 July, 2014, Super Typhoon Rammasun attacked some areas of Hainan, Guangdong provinces and Guangxi Zhuang Autonomous Region and caused flooding and the interruption of transportation, water, electricity and communications. On 30 July, 2014, Grand Agriseeds Technology, Inc. (Grand Agriseeds) issued an announcement declaring that the typhoon has caused a direct economic loss of about USD2.43 million (RMB15.00 million) to USD3.25 million (RMB20.00 million) for the company.

Partial of Grand Agriseeds’ seed production bases, R&D bases and warehouse logistics in South China have suffered some losses. In particular, the prophase investment of part of breeding bases that had finished seeding before the typhoon suffered a total loss; experiment materials in Hainan R&D base sustained serious losses due to flooding and lodging; soome infrastructure and R&D device in laboratory buildings and experimental fields were damaged severely; some seeds stocked in seed processing and inventory bases were damaged serious due to flooding. Besides, the typhoon also caused poor logistics and sales decrease in partial markets in South China for the company.
China's Seed Market

MOA seizes over 4 million kg of fake seeds in H1 2014

In H1 2014, in order to strike down illegal activities such as fake license tort, manufacturing and selling fake products that seriously disrupt the order of the seed market, the Ministry of Agriculture of the People's Republic of China (MOA) took an active action at cracking down fake seeds with over 4 million kg. According to the MOA, there are three noticeable features of the action for cracking down fake seeds in H1 2014.

1. The agriculture departments, the public security bureaus and the industry and commerce departments make joint efforts to intensify a crackdown on fake seeds. Provinces over the country have established three-department joint conference systems in accordance with the requirements of the action plan.

2. The crackdown activities of relevant departments and the movement of enterprises safeguarding rights are combined to achieve higher efficiency. Enterprises are stimulated to safeguard their legal rights and take actions to crack down fake seeds on the basis of universal coverage by utilizing public media such as Farmers' Daily. Under the guidance of the clues reported by enterprises, a special survey was pertinently conducted. Over 4 million kg of fake seeds was seized.

3. The investigation of major and serious criminal cases and the support of media exposure are combined to make a growing influence on the crackdown of fake seeds. Local governments were urged to implement the rectification plan, rectifying relevant seed trade markets by making full use of the influence of media exposure to take down regional protectionism. Altogether 8 major and serious criminal cases were disclosed by the national media in H1 2014.

National Exchange Center for IPR of Technological Achievements in Seed Industry launches officially

On 13 Aug., 2014, the National Exchange Center and Platform for Intellectual Property Rights of Technological Achievements in Seed Industry were officially launched in the Chinese Academy of Agricultural Sciences. Hopefully, the Chinese scientific research units and seed enterprises will enter the center for exchange in near future.

The Chinese Academy of Agricultural Sciences developed the National E-transaction Platform for Technological Achievements in Seed Industry independently and established the database for global intellectual property rights in seed industry, which will function as the cloud platform for large data of information in technological achievements in seed industry, the one-stop exchange E-platform and promotion base for visualized exposition. The action will stimulate the enthusiasm of R&D personnel for innovation in breeding and promote cooperation between R&D institutes, colleges and seed enterprises, which will favor the formation of modern seed enterprises combined with breeding, production and sales.
Food Crop Seed Market

Four enterprises and institutions to build New Danchuan corn jointly

On 31 July, 2014, according to the news from Sichuan Chuandan Seed Co., Ltd. (Sichuan Chuandan), four enterprises and institutions, including Sichuan Chuandan corn research team, Beijing Kings Nower Seed Science and Technology Co., Ltd. (Beijing Kings Nower), Beijing Shining Investment Management Co., Ltd. and Maize Research Institute of Sichuan Agricultural University, cooperate to build an upgraded collaborative innovation platform for corn seed industry and pay great efforts to create a new brand of corn, New Chuandan. So far, New Chuandan is the first investment project of Beijing Kings Nower and Beijing Shining in Sichuan.

Construction of China regional test station for potato variety finishes

On 14 July, 2014, the construction of China regional test station for potato variety in Beijing Changping District undertaken by the Institute of Vegetables and Flowers Chinese Academy of Agricultural Sciences was finished. This new test station can afford to regional tests for 50 varieties and production tests for 10 varieties. It can also provide relevant test conditions for 20 potato seeds (breeder's seeds and foundation seeds included) and variety display from double cropping areas in Central Plains and late-maturing areas in North China. All these will further improve its test technology and then promote the standardization, quality, security and normalization of potato industry.

The station has been installed with resistance identification glasshouse and ancillary buildings (1,398.96 m²), solar greenhouse (660.28 m²), mesh screening rooms (1,488 m²) and pergola (200 m²) as well as equipment (6 sets). The total investment for this project is USD423,436 (RMB2.61 million).
Hunan Province supervises low-cadmium-accumulation rice seed production

On 11 July, 2014, the Administration of Seed Management of Hunan Province held a training class on techniques for low-cadmium-accumulation rice seed production in Hunan Rice Research Institute, activating the low-cadmium-accumulation rice seed production and the supervision over the quality of seeds and other projects. As is required by the Execution Plan for Restoration of Heavy-metal-polluted Farmland and Pilot Program Adjustment for Crop Planting Structure in Hunan Province, Hunan Province is expected to guarantee the supply of low-cadmium-accumulation rice seed for 50,667 hectares (0.76 million mu) of qualified crop planting structure adjusting area in Changsha City, Zhuzhou County and Xiangtan City in 2015.

Vegetable Seed Market

Cucumber seeds’ market share of Tianjin Kernel surpasses 30%

According to market data, the cucumber varieties of Tianjin Kernel Cucumber Research Institute (Tianjin Kernel) have been spread in nationwide cucumber cultivation areas with a market share of more than 30% and an annual sales volume of about 30 tonnes in recent years. Tianjin Kernel has the biggest industrial scale and the most advanced production level among the industry in China. In addition, Tianjin Kernel’s scientific research achievements have won various national awards repeatedly and the trademark of “Jinyou” was awarded Chinese Famous Brand.

As the first scientific research institution which takes cucumber as professional research subjects, Tianjin Kernel has an integrated industrial system of breeding, cultivation, processing and sale for cucumber seeds as well as leading and sustaining industrial advantages. In 2005, Tianjin Kernel built a proving ground in Jinghai Agricultural Technology Demonstration Park, covering an area of 16 ha; in 2011, it established a modern testing ground in Tianjin Science & Technology Innovation Bases, covering an area of 27 ha. More than 400 ha of long-term and stable breeding bases were built by Tianjin Kernel to guarantee the market demand for cucumber seeds. Besides, Tianjin Kernel developed many cucumber varieties, like Jinyou, Jinchun, Jinza, Jinmei involving cucumber seeds of North-China Type, South-China Type, Less-thorn Type and Fruit Type. These varieties can adapt to different cultivation seasons, different cultivation methods and it also can meet different market demands.

Shanghai Zhongdu builds biggest vegetable breeding platform in Shanghai

According to the market dynamic of July 2014, Shanghai Zhongdu Seeds Science & Technology Co., Ltd. (Shanghai Zhongdu) displayed more than 1,200 vegetable varieties in the vegetable achievement exhibition in Shanghai Zhongdu Vegetable Science & Technology Industrial Park. These varieties can meet the market demand for vegetable seeds from different regions of the country and even the world.

Shanghai Zhongdu has built a seed resource bank with over 2,000 seed provenance. It also established broad contact with more than 100 international seeds companies and scientific research institutions from over 30 countries and regions such as the United States, the Netherlands, Israel, Japan, South Korea and so on. Originated in Shanghai, Shanghai Zhongdu International Seed Science & Technology Industrial Park as a carrier, Shanghai Zhongdu is committed to build a world-class team of vegetable breeding research. At present, Shanghai Zhongdu has mainly promoted over 30 conventional varieties and new special vegetables including tomato, pepper, bitter gourd, cucumber, cowpea, lettuce, green cabbage and red okra. Except for throughout the country, its products also sold to the United States, South Africa, Southeast Asia and other countries and regions.
Genome of wild tomato species helps to cultivate new varieties

On 27 July, 2014, a paper on genome of a wild tomato species was published on the Nature Genetics. A research team from Germany conducted a genome sequencing on Solanumpennellii, a wild tomato species originating in South American Andes, and revealed important genes concerned with its resistance and unique morphological characteristics. So far it is the second species that has been conducted genome sequencing. A large quantity of resistance genes and key regulatory genes concerned with fruit maturity were identified in wild tomatoes.

Though uneatable, wild tomato is capable of helping promoting the yield and resistance ability of tomato species if it is crossed with Solanum lycopersicum, a cultivated variety. Researchers discovered that the wax on wild tomato’s leaves is three times as much as the wax on cultivated varieties. Before that some studies said the wax was capable of preventing moisture loss from plants. According to researchers, to study wild tomato’s genes concerned with the synthesis of flavonoid and vitamin helps to cultivate some tomato species tastier and more nutritious.

Chinese first three-line new variety of aerospace pepper comes out in Tianshui City

On 8 Aug., 2014, the Three-line Aerospace Pepper Male Sterile Hybrid 65F1 Breeding Project, carefully nurtured by Shenzhou Lypeng Agriculture Technology Co., Ltd. in Tianshui City, Gansu Province over the past eight years, passed the appraisal by means of space mutation, exposure greenhouse generation-adding techniques, biotechnology and three-line system techniques. Aerospace Pepper 65F1, the technical result of the project, becomes Chinese first domestic three-line new variety of aerospace pepper, of which the red chili can yield 7,450.5 kg per ha (496.7 kg per mu) and has a Vitamin C content of 130mg/100g and a color value of 15.7, which respectively increased by 32.6%, 22.6% and 6.0% compared with the American red chili.

Success achieved in the hybrid breeding of the three lines of aerospace pepper (the sterile line, the maintainer line and the restorer line) is a significant beginning of breeding promotion. After applying for variety certificate of registration, this new variety will be put into substantive cultivation and production in 2015 and promoted with a great deal in the market.

Hefei Fengle’s profitability on vegetable seed business in 2013 witnesses decline

Summary: Hefei Fengle’s revenue from its vegetable seed business in 2013 reached USD4.81 million, accounting for 4% of Hefei Fengle’s revenue from its seed businesses, no changes compared with that of 2012. However, the gross profit and the gross profit margin for its vegetable seed business in 2013 was the lowest for the period 2009-2013. This indicates that the profitability of Hefei Fengle’s vegetable seed business declined during 2013.

Hefei Fengle Seed Co., Ltd. (Hefei Fengle)’s revenue from its seed business in 2013 reached USD114.44 million, increasing by 2% YoY. In particular, revenue from vegetable seed business reached USD4.81 million, increasing by 14% YoY. This revenue accounted for 4% of Hefei Fengle’s revenue from its seed businesses. Although Hefei Fengle’s revenue from its vegetable seed business in 2013 increased by more than 10% YoY, both the gross profit and the gross profit margin in 2013 were the lowest for the period 2009-2013. This indicates that the profitability of Hefei Fengle’s vegetable seed business declined during 2013.

Hefei Fengle’s seed businesses includes grain crops, vegetables and economic crops. Its grain crop seed varieties mainly include rice, corn and wheat. Its vegetable seed business has many varieties, including watermelon, muskmelon, cayenne pepper, waxy
corn, tomato, pumpkin and so on. Its economic crop seed business mainly produces cotton, oilseed rape and sesame.

It is worth noting that Hefei Fengle's revenue from its vegetable seed business was unstable from 2009 to 2013. In 2010, Hefei Fengle's revenue from its vegetable seed business reached USD7.49 million, which accounted for 8% of Hefei Fengle's revenue from its seed businesses. Nevertheless, from 2011 to 2013, Hefei Fengle's revenue from its vegetable seed business was less than USD4.87 million annually, and the revenue from its vegetable business in these three years all accounted for 4% of revenues from its seed businesses annually.

Also, Hefei Fengle's profitability on vegetable seed business has declined. From 2010 to 2013, Hefei Fengle's gross profit from its vegetable seed business has declined YoY, from USD1.98 million in 2010 to USD1.16 million in 2013. From 2011 to 2013, Hefei Fengle's gross profit margin from vegetables has also declined YoY. In particular, Hefei Fengle's gross profit margin from its vegetable seed business in 2011 reached 43%, followed by 31% in 2012 and 24% in 2013.

According to Hefei Fengle's plans for 2014, Hefei Fengle will continuously innovate its operation pattern, strengthen its vegetable seed business and further promote its seed businesses in the industry. Hefei Fengle's vegetable seed business is expected to improve its performance in 2014.

Figure 9: Hefei Fengle's vegetable seed business revenue and its growth rate, 2009-2013

![Figure 9: Hefei Fengle's vegetable seed business revenue and its growth rate, 2009-2013](Source: Hefei Fengle Seed Co., Ltd.)
Profitability of Longping High-Tech's vegetable seed business decreases in 2013

Summary: In 2013, Longping High-Tech's revenue from vegetable seed business was USD 4.37 million (RMB 26.91 million), which decreased by 16% year on year; the gross profit was USD1.51 million (RMB9.29 million), which decreased by 21% year on year. Revenue, gross profit and the gross profit margin of Longping High-Tech's vegetable seed business in 2013 all hit the lowest within the five years from 2009 to 2013. It shows that Longping High-Tech's vegetable seed business has been decreased in profitability.

In 2013, the revenue from seed business of Yuan Longping High-Tech Agriculture Co., Ltd. (Longping High-Tech) was about USD225.63 million (RMB1.39 billion), which increased by 2% year on year; the gross profit was USD95.28 million (RMB587.00 million), which increased by 14% year on year. In 2013, Longping High-Tech's revenue from vegetable seed business was USD4.37 million (RMB26.91 million), which decreased by 16% year on year; the gross profit was USD1.51 million (RMB9.29 million), which decreased by 21% year on year. Revenue, gross profit and gross profit margin of Longping High-Tech's vegetable seed business in 2013 all hit the lowest within the five years from 2009 to 2013. It shows that Longping High-Tech's vegetable seed
The seed business of Longping High-Tech can be divided into the three categories: grain crop seed business, vegetable seed business and industrial crop seed business. In particular, grain crop seeds includes rice seeds, corn seeds and wheat seeds; vegetable seeds can be divided into four categories: solanum seeds, melon seeds, leafy vegetable seeds and vegetable corn seeds; solanum seeds include line pepper, pod pepper, pickled pepper, chili, screw pepper, super spicy pepper, pimento and eggplant; melon seeds include towel gourd, cucumber, pumpkin, muskmelon, balsam pear, white gourd and watermelon; leafy vegetable seeds include Chinese cabbage, green terrier, Chinese cabbage peduncle, pakchoi, cabbage and radish; corn seeds include sweet corn mainly and industrial crop seeds includes cotton seeds and oilseed rape seeds.

It is noteworthy that on one hand, Longping High-Tech's vegetable seed business has been witnessed instability in revenue within the five years from 2009 to 2013. In 2010, Longping High-Tech's revenue from vegetable seed business was USD7.60 million (RMB46.81 million), which takes up for 5% of the total revenue from seed business. What's worse, its revenue from vegetable seed business in 2013 decreased to USD4.37 million (RMB26.91 million), which only takes up for 2% of the total revenue from seed business. On the other hand, Longping High-Tech's vegetable seed business has been decreased in profitability. Within the four years from 2010 to 2013, the gross profit of Longping High-Tech's vegetable seed business has been decreasing year by year from USD4.54 million (RMB27.98 million) in 2010 to USD1.51 million (RMB9.29 million) in 2013. Within the same period, the gross profit margin of Longping High-Tech's vegetable seed business has also been decreasing year by year: 59.77% in 2010, 42.57% in 2011, 36.5% in 2012 and 34.5% in 2013.

According to Longping High-Tech's plan in 2014, Longping High-Tech will still prioritise grain crop seed business. Therefore, it will be very challenging that Longping High-Tech want to achieve better performance in the vegetable seed business in 2014.
Winall Hi-Tech: revenue from vegetable seed business tumbles by 44 % in 2013

Summary: In 2013, Winall Hi-Tech gained a revenue of USD1.53 million (RMB9.41 million) from its vegetable seed business, down by 44% year on year and a gross profit of USD0.78 million (RMB4.78 million), down by 11% year on year.

In 2013, Winall Hi-tech Seed Technology Co., Ltd. (Winall Hi-Tech) gained a revenue of about USD69.44 million (RMB427.79 million) from its seed business, up by 8% year on year. Among the seed business, vegetable seed sector gained a revenue of USD1.53 million (RMB9.41 million), down by 44% year on year, which accounts for 2% of the total seed revenue of Winall Hi-Tech, down by 2 percentage points year on year. Not only did the revenue from vegetable seed business of Winall Hi-Tech drop sharply but also its gross profit fell visibly. In 2013, the gross profit of vegetable seed business of Winall Hi-Tech reached USD0.78 million (RMB4.78 million), down by 11% year on year.

Seed business of Winall Hi-Tech covers grain crops, vegetables and industrial crops. Among the seed business, the grain crop sector covers rice, corn and wheat, the vegetable seed sector include various seeds such as water melon seeds, muskmelon.
seeds and pumpkin seeds and the industrial crop sector mainly covers cotton and rape.

It is noteworthy that on one hand, the revenue from vegetable seed business of Winall Hi-Tech remained unstable from 2011 to 2013. In 2011, the revenue from vegetable seed business reached USD1.98 million (RMB12.21 million), accounting for 4% of the total seed revenue. In the following year, the revenue climbed to USD2.73 million (RMB16.79 million) with the same proportion to the total seed revenue while the proportion dropped to two percent in 2013. On the other hand, the gross profit margin of vegetable seed business of Winall Hi-Tech kept climbing year by year. The gross profit margin of vegetable seed business reached 27.14% in 2011, 32.12% in 2012 and 50.82% in 2013.

According to its 2014 plan, Winall Hi-Tech will keep on strengthening the core competence of hybrid rice seed industry and quicken the development of seed industry such as corn seeds and wheat seeds by means of appropriate merger and reorganisation. Additionally, the management mode for vegetable seed business will also be changed. To further promote the performance of vegetable seed business, Winall Hi-Tech schedules to successively register qualified vegetables simulated specialised companies as independent holding subsidiaries which are responsible for their own profit and loss. However, generally speaking, the expectation that the vegetable seed business in 2014 perform more outstandingly than the previous year is still of great challenge for Winall Hi-Tech.

Figure 15: Winall Hi-tech's vegetable seed business revenue and its growth rate, 2011-2013

![Graph showing vegetable seed business revenue and growth rate from 2011 to 2013. The revenue peaked in 2011, declined in 2012, and further decreased in 2013. The growth rate also shows a declining trend.]

Source: Winall Hi-tech Seed Co., Ltd.
Shandong Denghai's vegetable seed business maintains momentum in 2013

Summary: In 2013, Shandong Denghai gained a revenue of USD3.28 million (RMB20.21 million) from its vegetable seed business, down by 6% year on year. This revenue accounts for 1.4% of its total seed business revenue, down by 0.4 percentage points. Generally speaking, the vegetable seed business of Shandong Denghai remained a solid momentum in 2013.

In 2013, Shandong Denghai Seeds Co., Ltd. (Shandong Denghai) gained a revenue of approximate USD242.82 million (RMB1.50 billion) from its seed business, up by 28.0% year on year. Among the seed business, the revenue from vegetable seed business reached USD3.28 million (RMB20.21 million), down by 6% year on year, accounting for 1.4% of the total seed business revenue, down by 0.4 percentage points. In 2013, the gross profit of vegetable seed business of Shandong Denghai reached USD1.64 million (RMB10.13 million), down by 4.0%. From a general view, the vegetable seed business of Shandong Denghai remained a solid momentum in 2013.

The seed business of Shandong Denghai covers grain crops, vegetables and flower seeds and seedlings. Among the seed
business, the grain crop seed sector covers wheat seed and corn seed mainly; the vegetable seed sector includes several varieties including Chinese cabbage, cabbage, radish, Cucurbita pepo L., wax gourd, welsh onion, watermelon, pepper, eggplant, tomato, cucumber, waxy corn and sweet corn and the flower seed and seedling sector mainly covers butterfly orchid, cyclamen, anthurium and pineapple.

It is noteworthy that on one hand, the revenue from vegetable business of Shandong Denghai was unstable from 2009 to 2013. In 2009, the vegetable seed business of Shandong Denghai gained a revenue of USD2.40 million (RMB14.78 million), which accounts for 2.6% of its seed business revenue and that in 2011 reached USD2.69 million (RMB16.57 million), accounting for 1.4% of the total seed business revenue. In the following year, the revenue climbed to USD3.48 million (RMB21.46 million), accounting for 1.8% of the total seed business revenue of Shandong Denghai. However, the proportion dropped to 1.4% in 2013. On the other hand, the gross profit margin of vegetable business of Shandong Denghai remained steadily increase, which reached 42% in 2009 and rose to 50% in 2013.

According to its 2014 schedule, Shandong Denghai will continue strengthening its core competence in hybrid corn seed industry, despite the strong possibility that vegetable seeds may still not be highlighted. But generally speaking, the vegetable seed business of Shandong Denghai is hopeful to maintain a sound momentum in 2014.

![Figure 18: Shandong Denghai's vegetable seed business revenue and its growth rate, 2009-2013](source: Shandong Denghai Seeds Co., Ltd.)
Grand Agriseeds’ profitability on vegetable seed business declines sharply in 2013

Summary: Grand Agriseeds’ revenue from its vegetable seed business in 2013 reached USD0.33 million (RMB2.06 million), sharply declining by 85% year on year; and its net profit was USD0.08 million (RMB0.50 million), sharply declining by 90% year on year.

Grand Agriseeds Technology, Inc. (Grand Agriseeds)’s revenue from its seed business in 2013 reached about USD64.71 million (RMB398.62 million), declining by 5.0% year on year. In particular, the revenue from its vegetable seed business reached USD0.33 million (RMB2.06 million), sharply declining by 85.0% year on year. This revenue accounted for 1.0% of Grand Agriseeds’ revenue from its seed business, declining by 2 percentage points year on year. Not only Grand Agriseeds’ revenue from its vegetable seed business but also its net profit declined sharply in 2013. In 2013, Grand Agriseeds’ net profit from its vegetable seed business reached USD0.08 million (RMB0.50 million), sharply declining by 90.0% year on year.

Grand Agriseeds’ seed business includes grain crop seed, vegetable seed and industrial crop seed. Varieties of grain crop seed
business mainly include rice and corn; vegetable seed business has much varieties, including watermelon, muskmelon, cayenne pepper, tomato and so on; varieties of industrial crop seed business mainly include cotton and oilseed rape.

It is worth noting that Grand Agriseeds' revenue from its vegetable seed business from 2010 to 2013 was unstable. In 2010, Grand Agriseeds’ revenue from its vegetable seed business reached USD2.05 million (RMB12.60 million), accounting for 3.2% of Grand Agriseeds’ revenue from its seed business; in 2011, Grand Agriseeds’ revenue from its vegetable seed business reached USD2.16 million (RMB13.30 million), still accounting for 3.2% of the revenue from its seed business; in 2012, the revenue from its vegetable seed business increased to USD2.31 million (RMB14.23 million), accounting for 3.4% of Grand Agriseeds’ revenue from its seed business. However, in 2013 this proportion sharply declined to 0.5%, which mainly due to Grand Agriseeds' adjustment on strategy for seed variety sales. In 2013, Grand Agriseeds’ seed sales strategy was mainly concentrated on hybrid rice seed, supplemented with other varieties.

According to Grand Agriseeds' plan for 2014, Grand Agriseeds will continue to strengthen its core competitiveness on hybrid rice seed industry. Vegetable seed will probably still not the sales focus of Grand Agriseeds. In general, it is still a challenge for Grand Agriseeds to make a better performance in vegetable seed business in 2014.

Figure 21: Grand Agriseeds’ vegetable seed business revenue and its growth rate, 2010-2013

![Figure 21: Grand Agriseeds’ vegetable seed business revenue and its growth rate, 2010-2013](source)

Figure 22: Grand Agriseeds’ revenue, gross profit and gross profit margin from vegetable seed business, 2010-2013

![Figure 22: Grand Agriseeds’ revenue, gross profit and gross profit margin from vegetable seed business, 2010-2013](source)
Industrial Crop Seed Market

Gansu Province to study sunflower highly resistant to saline soil

On 24 July, 2014, CCTV.com reported that the sunflower planting alleviated the salinisation and desertification in Minqin County, Wuwei City, Gansu Province. Gansu Jingye Agricultural Technology Co., Ltd. schedules to establish a sunflower breeding centre for development of new variety of sunflower highly resistant to saline soil. As data shows, located in Northwest China, Gansu Province suffers an area of 1.41 million ha (21.21 million mu) of saline land with the trend of aggravation and under the threat to agricultural production. Considering the great developmental potential of the sunflowers which are highly resistant to saline soil, the variety can not only promote its yield but also improve the saline land.

Xinluzhong 37: largest conventional land cotton variety in Southern Xinjiang

According to statistics in H1 2014, developed by Talimu River Seed Co., Ltd., Xinluzhong 37 has become the largest cultivated cotton variety in Southern Xinjiang, covering more than 45% of the total cotton planting areas.

In March 2008, approved by the Crop Variety Approval Committee in Xinjiang Uygur Autonomous Region, Xinluzhong 37 organically combines the virtues of disease resistance, high yield and high quality and enjoys brilliant advantages such as wide adaptability, easy management and high net rate of mechanical plucking.
Industrial crop seed business becomes highlight of Hefei Fengle’s performance in 2013

Summary: Hefei Fengle’s revenue from its industrial crop seed business in 2013 reached USD13.64 million (RMB84.00 million), increasing by 88% year on year, which was the highest revenue from its industrial crop seed business from 2009 to 2013. This shows that industrial crop seed business is playing a more and more important role in Hefei Fengle's seed business.

In 2013, Hefei Fengle Seed Co., Ltd. (Hefei Fengle)'s revenue from its seed business reached USD114.44 million (RMB705.00 million), increasing by 2% year on year. In particular, industrial crop seed business became the highlight of Hefei Fengle’s seed business. Hefei Fengle's revenue from its industrial crop seed business in 2013 reached USD13.64 million (RMB84.00 million), increasing by 88% year on year. It accounted for 12% of Hefei Fengle’s revenue from its seed business, increasing by six percentage points year on year. The revenue from industrial crop seed business in 2013 was the highest one from 2009 to 2013, which shows that industrial crop seed business is playing a more and more important role in Hefei Fengle’s seed business.

Seed business of Hefei Fengle includes grain crop seed, vegetable seed and industrial crop seed. Varieties of grain crop seed mainly includes rice seed, corn seed and wheat seed; vegetable seed includes many varieties; and industrial crop seed mainly includes cotton, oilseed rape and sesame.

It is worth noting that Hefei Fengle’s growth rates of industrial crop seed business were all high from 2011 to 2013. The growth rate in 2011 reached 124%, followed by 26% in 2012 and 88% in 2013. In addition, Hefei Fengle's gross profit margin of industrial crop seed business reached 27% in 2013, increasing by ten percentage points year on year.

According to Hefei Fengle’s plan for 2014, Hefei Fengle will continuously innovate its operation pattern, strengthen its industrial crop seed business and further promote the position and influence of its seed business in the industry. Hefei Fengle's industrial crop seed business is expected to make a better performance in 2014.

Figure 24: Hefei Fengle’s industrial crop seed business revenue and its growth rate, 2009-2013
Industrial crop seed business of Longping High-Tech turns losses into gains in 2013

Summary: The gross profit of Longping High-Tech's industrial crop seed business was USD 0.70 million (RMB 4.32 million), which increased by USD 0.83 million (RMB 5.09 million) year on year. In 2013, Longping High-Tech's industrial crop seed business turned losses into gains.

In 2013, the revenue from seed business of Yuan Longping High-Tech Agriculture Co., Ltd. (Longping High-Tech) was about USD 225.63 million (RMB 1.39 billion), which increased by 2% year on year; the gross profit was USD 95.28 million (RMB 587.00 million), which increased by 14% year on year. Longping High-Tech's industrial crop seed business played an important role in bringing itself back to profitability. In 2013, the revenue from its industrial crop seed business was USD 4.21 million (RMB 25.93 million), which increased by 37% year on year, accounting for 2% of its seed business, which increased by one percentage point year on year. The gross profit of its industrial crop seed business was USD 0.70 million (RMB 4.32 million), which increased by USD 0.83 million (RMB 5.09 million) year on year. In 2013, Longping High-Tech brought the gross profit of its industrial crop seed
business back to profitability after sustained losses in 2012.

The seed business of Longping High-Tech can be divided into three categories: grain crop seed business, vegetable seed business and industrial crop seed business. What's more, grain crop seed business includes rice seed, corn seed and wheat seed; vegetable seed business includes a wide range of varieties; industrial crop seed business includes cotton seed and oilseed rape seed.

It is noteworthy that while Longping High-Tech turned losses of the gross profit of its industrial crop seed business into gains, the gross profit margin also increased from -4.11% in 2012 to 16.64% in 2013.

According to the plan of Longping High-Tech in 2014, Longping High-Tech will still prioritise grain crop seed business. Therefore, it will be very challenging that Longping High-Tech want to achieve better performance in the industrial crop seed business in 2014.

Longping High-Tech has many subsidiaries responsible for its industrial crop seed business. They are Hunan Longping High-tech Ava Cotton & Oil Crop Seeds Co., Ltd., Anhui Longping High-tech Agriculture Co., Ltd., Hunan Yahua Cotton Seed Co., Ltd., Hunan Longping Seed Industry Co., Ltd. and Sichuan Longping High-Tech Seed Industry Co., Ltd.

Figure 27: Longping High-Tech's industrial crop seed business revenue and its growth rate, 2009-2013

Figure 28: Longping High-Tech's revenue, gross profit and gross profit margin from its industrial crop seed business, 2009-2013
Winall Hi-Tech: industrial crop seed business develops steadily in 2013

Summary: In 2013, Winall Hi-Tech gained a revenue of USD0.82 million (RMB5.04 million) from its industrial crop seed business, down by 5% year on year and a gross profit of USD0.32 million (RMB1.97 million), up by 1% year on year. From a general view, the industrial crop seed business of Winall Hi-Tech in 2013 witnessed a steady development.

In 2013, Winall Hi-tech Seed Co., Ltd. (Winall Hi-Tech) gained a total revenue of about USD69.44 million (RMB427.79 million) from its seed business, up by 8% year on year, including USD0.82 million (RMB5.04 million) from industrial crop seed business, down by 5% year on year. The revenue from industrial crop seed business accounts for 1% of the total revenue from seed business of Winall Hi-Tech and remains stable compared year on year. Besides, the gross profit of Winall Hi-Tech's industrial crop seed business in 2013 reached USD0.32 million (RMB1.97 million), up by 1% year on year. Generally speaking, the industrial crop seed business of Winall Hi-Tech in 2013 witnessed a steady development.

The seed business of Winall Hi-Tech covers grain crops, vegetables and industrial crops. Among the seed business, the grain crops sector covers rice seeds, corn seeds and wheat seeds, the vegetables sector includes various seeds such as water melon seeds, muskmelon seeds and pumpkin seeds and the industrial crop sector mainly covers cotton seeds and rape seeds. In 2013, Winall Hi-Tech's revenue from cotton seeds reached USD0.70 million (RMB4.31 million), down by 12% year on year and that from rape seeds reached USD0.12 million (RMB0.73 million), down by 66% year on year.

It is noteworthy that on one hand, Winall Hi-Tech's growth rate of revenue from industrial crop seed business kept going down year by year during 2011–2013, from 217% in 2011, to 54% in 2012, and then to -5% in 2013. Small as the proportion of the revenue from industrial crop seed business to the total seed revenue was, it steadily remained 1% from 2011 to 2013. On the other hand, the gross profit margin of industrial crop seed business keeps going up year by year. In particular, the gross profit margin of industrial crop seed business reached 34% in 2011, 37% in 2012 and 39% in 2013.

Generally speaking, the expectation that the industrial crop seed business performs more outstandingly in 2014 than the previous
year is still of great challenge for Winall Hi-Tech. According to its 2014 plan, Winall Hi-Tech will keep on strengthening the core competence of hybrid rice seed industry and quicken the development of seed industry such as corn seed and wheat seed by means of appropriate merger and reorganisation. Additionally, the management mode for vegetable business will also be changed. To further promote the performance of vegetable seed business, Winall Hi-Tech schedules to successively register qualified vegetables simulated specialised companies as independent holding subsidiaries which are responsible for their own profit and loss. However, Winall Hi-Tech did not specify how to promote the performance of industrial crop seed business.

Figure 30: Winall Hi-tech’s industrial crop seed business revenue and its growth rate, 2011-2013

![Figure 30: Winall Hi-tech’s industrial crop seed business revenue and its growth rate, 2011-2013](Source: Winall Hi-tech Seed Co., Ltd.)

Figure 31: Winall Hi-tech’s revenue, gross profit and gross profit margin from its industrial crop seed business, 2011-2013

![Figure 31: Winall Hi-tech’s revenue, gross profit and gross profit margin from its industrial crop seed business, 2011-2013](Source: Winall Hi-tech Seed Co., Ltd.)
Grand Agriseeds’ revenue from industrial crop seed business in 2013 declines apparently

Summary: Grand Agriseeds’ revenue from its industrial crop seed business was USD2.48 million (RMB15.26 million), declining by 29.00% year on year; its net profit reached USD0.87 million (RMB5.35 million), declining by 23.00% year on year. In general, Grand Agriseeds’ profitability of its industrial crop seed business in 2013 declined year on year.

Grand Agriseeds Technology, Inc. (Grand Agriseeds)’s revenue from its seed business in 2013 reached USD64.71 million (RMB398.62 million), declining by 5.00% year on year. In particular, the revenue from its industrial crop seed business reached USD2.48 million, declining by 29.00% year on year. This revenue accounted for 4.00% of Grand Agriseeds’ revenue from its seed business, declining by 1 percentage point year on year. Grand Agriseeds’ gross profit from its industrial crop seed business in 2013 reached USD0.87 million (RMB5.35 million), declining by 23.00% year on year. In general, Grand Agriseeds’ profitability of its industrial crop seed business in 2013 declined year on year.

Grand Agriseeds’ seed business includes grain crop seed, vegetable seed and industrial crop seed. Varieties of grain crop seed business mainly include rice and corn; vegetable seed business has much varieties, including watermelon, muskmelon, cayenne pepper, tomato and so on; varieties of industrial crop seed business mainly include cotton and oilseed rape, which focuses on cotton seeds.

It is worth noting that for one thing, Grand Agriseeds’ revenue from its industrial crop seed business from 2010 to 2013 were unstable. In 2010, Grand Agriseeds’ revenue from its industrial crop seed business reached USD1.90 million (RMB11.71 million), accounting for 3.00% of the revenue from its seed business; in 2011, the revenue from its industrial crop seed business reached USD2.90 million (RMB17.88 million), accounting for 4.30% of Grand Agriseeds’ revenue from its seed business; in 2012, the revenue from its industrial crop seed business increased to USD3.48 million (RMB21.43 million), accounting for 5.10% of Grand Agriseeds’ revenue from its seed business. However, in 2013 this proportion declined to 3.80%, mainly due to Grand Agriseeds’ adjustment on sales strategy for seed varieties. In 2013, Grand Agriseeds’ sales strategy for seed mainly focuses on hybrid rice seed, supplemented with other varieties. For another thing, Grand Agriseeds’ gross profit margin of its industrial crop seed business increased year by year, which reached 27.58% in 2010, 31.24% in 2011, 32.55% in 2012 and 35.09% in 2013.
According to Grand Agriseeds’ plan for 2014, Grand Agriseeds will continue to strengthen its core competitiveness in hybrid rice seed industry. Industrial crop seed will probably still not be the sales focus of Grand Agriseeds. In general, it is still a challenge for Grand Agriseeds’ industrial crop seed business to make a better performance in 2014.

Figure 33: Grand Agriseeds’ industrial crop seed business revenue and its growth rate, 2010-2013

![Graph showing industrial crop seed business revenue and growth rate from 2010 to 2013.]

Source: Grand Agriseeds Technology, Inc.

Figure 34: Grand Agriseeds’ revenue, gross profit and gross profit margin from its industrial crop seed business, 2010-2013

![Graph showing revenue, gross profit, and gross profit margin for the industrial crop seed business from 2010 to 2013.]

Source: Grand Agriseeds Technology, Inc.
Forage Crop Seed Market

China cultivates its first space-flight mutation pasture

Summary: Lanzhou Institute of Husbandry and Pharmaceutical Sciences of CAAS has successfully cultivated a new variety of multifoliate alfalfa, Hangmu No.1 alfalfa, by space-flight mutation breeding technology.

On 11 July, 2014, Lanzhou Institute of Husbandry and Pharmaceutical Sciences of CAAS released an announcement declaring that it has successfully cultivated a new variety of pasture, Hangmu No. 1 alfalfa, through the advanced technology of space-flight mutation breeding. This new variety has been approved by the Grass Variety Approval Committee of Gansu Province.

Hangmu No. 1 alfalfa is the first space flight mutation multifoliate alfalfa in China. Compared with common pasture, this new variety are higher quality and higher yield, which is evident with its high leaf rate, high yield of grass and rich nutrient content. It has five leaves with a leaf rate of 41.50% and its leaves account for 50.36% of the total. Its hay yield is 15,529.9 kg per square hectare, 12.8% higher than the average hay yield of common varieties. Its crude protein content is 20.08%, 2.97% higher than the average crude protein of common varieties. The new variety has a content of 12.32% of the 18 types of amino acid, which is 1.57% higher than the average amino acid content of the control group. Also the thousand seed weight is 2.39g, with a pasture dry-fresh ratio of 1:4.68. Hangmu No. 1 alfalfa is suitable for cultivation in the semi-arid and semi-humid areas of Loess Plateau, oasis areas in the Hexi Corridor and similar areas in northern China. The successful cultivation of this new variety is of great significance because it will help to improve the ecological environment and will increase productivity in animal husbandry.

As the third nation to have mastered the technology for returnable satellites, China started space-flight breeding in 1987. So far, a batch of crops, vegetables and flowers have been cultivated and are widely used in production. At present, China is a leader in space-flight breeding. However, China’s pasture space-flight breeding is still at an early phase, with its focus on selective breeding research of alfalfa varieties.
Figure 36: Single plant of Hangmu No.1 alfalfa

Source: Lanzhou Institute of Husbandry and Pharmaceutical Sciences of CAAS

Figure 37: Production test of Hangmu No.1 alfalfa

Source: Lanzhou Institute of Husbandry and Pharmaceutical Sciences of CAAS
Other Crop Seed Market

Tobacco seeds help make jet fuel

On 6 Aug., 2014, the US aircraft manufacturer Boeing released its plan to team up with South African Airways and SkyNRG to make jet fuel by means of extracting oil from seeds of nicotine-free hybrid tobacco known as Solaris, whose seeds contain a large amount of oil. Test farming of the plants is already ongoing. The present movement is of profound significance to tobacco growers and provides a new light for usage development of seeds.

Shandong Denghai’s profitability on flower seed business witnesses a YoY decrease in 2013

Summary: In 2013, Shandong Denghai’s revenue from flower seed and seedling business reached USD0.65 million (RMB4.02 million), down by 30.0% year on year and it also gained a gross profit of USD0.45 million (RMB2.75 million), down by 21.0% year on year. From a general view, the profitability of Shandong Denghai’s flower seed and seedling business slightly shrunk in 2013.

In 2013, Shandong Denghai Seeds Co., Ltd. (Shandong Denghai) gained a revenue of about USD242.82 million (RMB1.50 billion) from its seed business, up by 28.0% year on year. Among the seed business, the flower seed and seedling business obtained a revenue of USD0.65 million (RMB4.02 million), down by 30.0% year on year, which accounts for 0.3% of the seed business revenue of Shandong Denghai, down by 0.2 percentage points year on year. Additionally, the gross profit from flower seed and seedling business reached USD0.45 million (RMB2.75 million), down by 21.0% year on year. Overall, Shandong Denghai witnessed a shrink in its flower seed and seedling business's profitability in 2013.

The seed business of Shandong Denghai covers grain crops, vegetables and flower seeds and seedlings. Among the seed business, the grain crop seed sector covers wheat seed and corn seed mainly; the vegetable seed sector includes several varieties including Chinese cabbage, cabbage, radish, Cucurbita pepo L., wax gourd, welsh onion, watermelon, pepper, eggplant, tomato, cucumber, waxy corn and sweet corn and the flower seed and seedling sector mainly covers butterfly orchid, cyclamen, anthurium and pineapple.

It is noteworthy that on one hand, the revenue from flower seed and seedling business of Shandong Denghai was unstable from 2009 to 2013. In 2009, it reached USD0.66 million (RMB4.09 million), accounting for 0.7% of the total seed business revenue and that in 2011 climbed to USD0.87 million (RMB5.37 million), up by 38.0% year on year, accounting for 0.5% of the total seed business revenue. However, the revenue from flower seed and seedling business dropped to USD0.65 million (RMB4.02 million) in 2013, down by 30.0% year on year. On the other hand, the gross profit margin of flower seed and seedling business of Shandong Denghai generally remained steadily high from 2009 to 2013, which reached 63.0% in 2009 and rose to 68.0% in 2013.

According to its 2014 plan, Shandong Denghai will continue strengthening its core competence in hybrid corn seed industry and there's a strong possibility that flower seed and seedling may still not be highlighted. But overall, the flower seed and seedling business is expected to get improved in 2014.
Figure 38: Shandong Denghai’s flower seed and seedling business revenue and its growth rate, 2009-2013

Source: Shandong Denghai Seeds Co., Ltd.

Figure 39: Shandong Denghai’s revenue, gross profit and gross profit margin from its flower seed and seedling business, 2009-2013

Source: Shandong Denghai Seeds Co., Ltd.
**GM Crop**

**Illegal GM rice seeds appear in markets in Hubei Province**

Summary: It is exposed that some illegal GM rice seeds with Bt63 were sold in Wuhan City, Hubei Province. However, only cotton and papaya these two GM crops are approved to be commercially cultivated in China and only five kinds of crops, including soybean, corn, cotton, rape and beet, are approved to be imported and used as processing materials.

On 26 July, 2014, CCTV exposed that among five kinds of rice purchased at random from a supermarket in Wuhan City, Hubei Province, three were found containing Genetically Modified (GM) ingredient Bt63. What’s more, according to investigation, they discovered that some illegal GM rice seeds were sold in the markets of Wuhan City and this has aroused wide public concern and questioning.

At present, the provincial government of Hubei Province has already arranged and deployed investigations. They cooperate with public security departments, tracing the source of GM rice seeds and where they go, testing and checking GM rice ingredients in the rice that grow in big fields and wiping out the fields that are confirmed with GM rice. Besides, they affix responsibility strictly to the units or individuals with poor supervision to GM safety. The municipal government of Wuhan City also forms a special investigation team, investigating all rice planting bases, processing enterprises, workshops and super markets throughout the city and strictly preventing GM rice from flowing to tables.

According to the information from the GM Organisms Safety Management Office of MOA, nowadays, only two kinds of GM crops, cotton and papaya, are approved of commercial cultivation in China and only five kinds of crops that are approved to be imported and used as processing materials, including soybean, corn, cotton, rape and beet. Except for approving of GM cotton's cultivation, imported GM soybean, GM cotton, GM rape and so on are only used as processing materials. Chinese law stipulates that imported agriculture GM organisms used as processing materials are not allowed to change usage. That is to say they can not be cultivated...
in the country. By far, China hasn't approved any kinds of imported GM crop seeds to be cultivated in China.

In this incident, although Bt63 GM rice has achieved GM organism safety certificate, it hasn't been approved of commercial cultivation. If GM crops are to be commercially cultivated, variety approval should be carried out and permission of seed production and management should be achieved according to relevant regulations of the Seed Law. Only in this way can GM crops be cultivated in China.

**Brief news**

**Cotton Seed Industry Chapter of CNSA established in Hohhot City**

On 7 Aug., 2014, the founding conference of the Cotton Seed Industry Chapter of China National Seed Association (CNSA) was held in Hohhot City City, Inner Mongolia Autonomous Region. In recent years, abnormal fluctuation occurred in China’s cotton production, triggered by the price impact from international markets and a large-scale shrink in the planting area of cotton, which is of great disservice to guarantee the stability of China’s cotton production and the supply for normal consumption of raw cotton. The Cotton Seed Industry Chapter of CNSA is expected to address problems in cotton seed industry such as vicious competition among hybrid cotton seed production enterprises, arbitrage among seed enterprises, selling beyond agreed areas, price slash, biding up and so on.

**Significant innovation achievement in Henan Province’s large bulk vegetable industry**

On 15 Aug., 2014, the technical system innovation team of Henan Province's large bulk vegetable industry held a meeting in Xinye County, Henan Province, providing an excellent channel for viewing and exchange at the innovative achievements that the team has obtained over the past five years.

Over the past five years, the innovation team has cultivated 24 new vegetable varieties and has screened out 121 fine varieties and also obtained 7 awarded achievements and 10 identified achievements. What’s more, it set up 3 germplasm banks covering pepper, eggplant and garlic and a molecular marker-assisted breeding platform, and developed 5 products applied with physico-chemical technology and 12 new technologies as well as formulated 13 technical specifications.
Shandong’s five moves to reform fine seeds project

On 3 July, 2014, the Department of Science and Technology of Shandong Province released a five-move plan for the reform of fine seeds project, which had been enforced for 18 years. The moves are as follows.

1. Activate the enthusiasm of R&D personnel by means of item-limit-free term for project application, in order to enhance fairness and its total performance.

2. To promote resource integration utilization efficiency and make the capital more flexible with several approaches such as free subsidy, pilot capital, self finance and later subsidy.

3. Competition mechanism will be introduced into the breeding of public welfare, and projects implemented up to three years will be examined. Whether the implementation of the projects should continue depends on the examination, which changes the low spirit of R&D personnel caused by completely stable support.

4. Strengthen the major position of innovative seed enterprises. Set clearly the requirement that commercial breeding application should be led by enterprises and cooperative innovation with colleges and universities should be promoted.

5. Establish an internal control system of openness and transparency for project application, assessment and established project management. Expert challenge system and complete supervision over assessment should be brought into effect to pursue the declaration, inquiry and tracking to ensure fairness, justice and openness.
Chongqing City’s display and demonstration of new crops varieties present four four highlights

In 2014, significant results achieved in the display and demonstration of Chongqing City’s new crops varieties show the four highlights listed as follows.

1. Multi-level Demonstration

The demonstration of Chongqing City’s new crops varieties have 2 national demonstration sites, 16 municipal demonstration sites, 14 county demonstration sites and over 30 seed industry enterprises.

2. Multi-varieties Demonstration

The crops for the demonstration are rice, cotton, rape, wheat, vegetable and so on. At present, there are 1195 crops varieties and 671.76 ha (10,076.4 mu) of demonstration areas for the display. The number of crops varieties and the areas of demonstration sites in 2014 ranks first among that in recent years.

3. Multi-agent Demonstration

Altogether 27 district (county) seed management departments in Chongqing City launched the display and demonstration of new crops varieties. The number of districts (counties) in 2014 ranks first compared with that in recent years.

4. Innovative Mechanism

The districts and counties in Chongqing City combined the display and demonstration of new crops varieties with the high-yield breeding demonstration of grain and oil crops. They also collaborated with the seed industry and various scientific research institutions to strengthen the regional distribution of varieties and accelerate the pace of the promotion of new crops varieties.

Correction

Published date: 29 July, 2014 (Seed China News 1407)

Volume and issue: Vol. 4, Issue 04, 2014

Original mistakes: Vol. 4, Issue 04, 2014

"Vol. 4, Issue 04, 2014" should be "Vol. 4, Issue 07, 2014"
CCM's legal disclaimers

1. CCM guarantees that the information in the report is accurate and reliable to the best of its knowledge and experience. CCM defines the report as a consulting product providing information and does not guarantee its information is completely in accordance with the fact. CCM shall not have any obligations to assume any possible damage or consequences caused by subscribers' any corporate decisions based upon subscribers' own understanding and utilization of the report.

2. The complete copyright of the report is and will be held by CCM. Subscribers shall not acquire, or be deemed to acquire the copyright of the report.

3. The report provided by CCM shall be only used as source of subscriber's internal business decisions and shall not be used for any other purposes without CCM's prior written consent, unless stated and approved in license contracts signed by both parties. Subscribers shall not distribute, resell and disclose the whole report or any part of the report to third parties and shall not publish any article or report by largely or directly copying or citing the information or database on CCM's report without the prior written consent of CCM.

4. "Single User License" means that there shall be only ONE person to receive, access and utilize the report. Subscriber can present the content of the report that marked the source from CCM to their internal colleagues for their internal communication and utilization, but cannot share the whole report to other individuals. Any citation, distribution, reselling and disclosure of the report as well as its partial content to any third party are prohibited, including but not limited to their parent companies or subsidiaries.

5. "Corporate License" means that subscriber shall not cite, distribute, resell the report or disclose information of the report to any third party without CCM's prior written consent, except subscribers' affiliates controlled with ownership of more than 50% of shares.

Guangzhou CCM Information Science & Technology Co., Ltd.
Any publication, distribution or copying of the content in this report is prohibited.
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