

Competitiveness of the Rapeseed Industry in China

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ABSTRACT

The purpose of this article is to discuss the competitiveness of the rapeseed industry in China by focusing on the current situation of rapeseed and developments covering production, yield, crop area, trade, consumption pattern and infrastructure as well as government policy. The method of SWOT (strengths, weaknesses, opportunities and threats) analysis was used to gain an understanding of the strengths, weaknesses, opportunities and threats of the Chinese rapeseed industry. The information in this article was collected from various secondary sources. China was chosen for this article based on the fact that this country is one of the largest rapeseed producers and the world's largest importer of rapeseed. In 2016, rapeseed production continued to decline in response to a further reduction in planted area for the fifth consecutive year due to limited arable land and policies that favour grain crops, thus affecting domestic crushing volume and rapeseed oil production. The situation of palm oil in China was also discussed as palm oil continues to dominate China's vegetable oil imports. In such a scenario, palm oil has an advantage in gaining more share in China's vegetable oils market. China will continue to be the world's major importer of oilseeds, particularly soyabean and rapeseed, in view of the limited oilseeds production in the country and growing domestic demand.

Keywords: rapeseed, production, imports, consumption, policy, competitiveness, China.

INTRODUCTION

China is the third largest producer of rapeseed in the world after European Union (EU) and Canada, representing 12% of total rapeseed production in 2015/2016. According to Oil World (2016a),

rapeseed is the third largest oilseed crop in China at 8 million tonnes produced from 5.2 million hectares of land, and representing 19% of the total oilseeds production in the country. In order of importance, the major oilseed crops produced in China are groundnut, soyabean,

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rapeseed, cottonseed, sunflower, sesame, linseed and castor. Most of the rapeseed area is concentrated in the central region with Hubei as the biggest province for rapeseed planted area, accounting for 0.85 million hectares (or 16%) of the total rapeseed area. Currently, the rapeseed crushing capacity is about 40 million tonnes per year but domestic supplies are not enough to meet such a large capacity.

China is highly dependent on imports of oilseeds, and has become the world's largest importer of rapeseed, mainly from Canada. Government policy changes have made an impact on the Chinese rapeseed industry because the purchase of rapeseed at high floor prices by the government's state reserve has resulted in uncompetitive prices for domestic rapeseed. In addition, the release of more than 2 million tonnes of rapeseed oil from the government state reserves in 2015/2016 significantly reduced the country's dependence on imports of vegetable oils, primarily palm oil.

In China, rapeseed oil is mainly for food uses, whereas about 60% of palm oil is for food applications and 40% for industrial use. China will continue to be the world's major

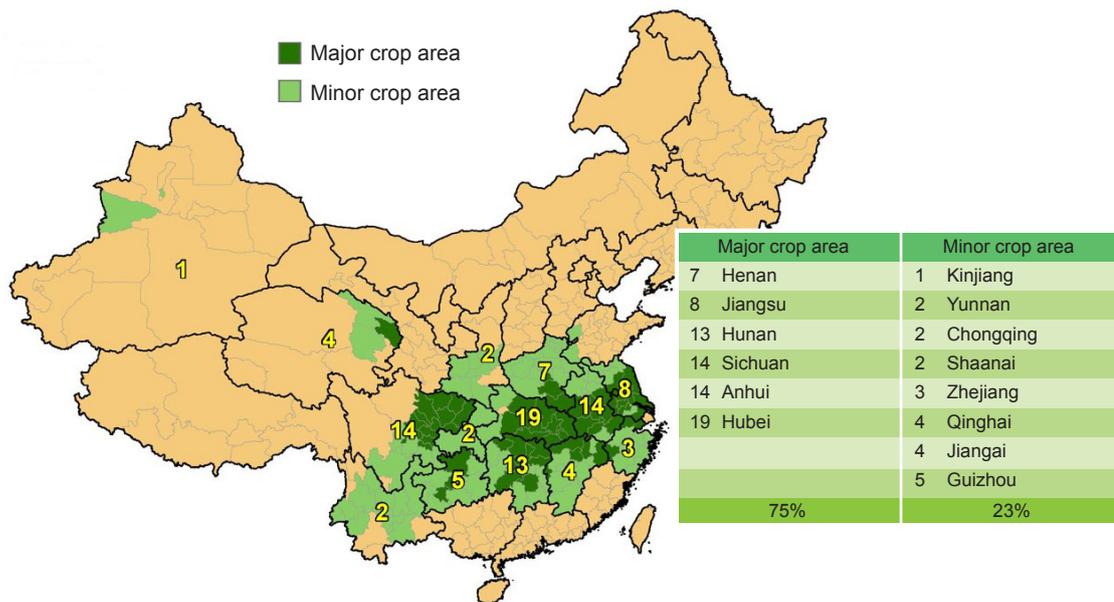
importer of oilseeds, particularly soyabean and rapeseed, given the limited oilseeds production and growing domestic demand. Fast urbanisation and population growth accelerate the demand for more vegetable oils and fats imports. It is expected that palm oil will continue to dominate China's vegetable oil imports taking into account the major drivers affecting its demand, *i.e.* the competitive price of palm oil relative to other vegetable oils, its wide use in the food processing industry as well as being highly used in blended cooking oil.

It is necessary for China to develop high-yielding rapeseed varieties and innovations in cultivation technologies to produce high quality rapeseed and increase yield potential. The country's Oilseed Production Plan by 2020 is seen to target improvement in the domestic production of the China's oilseeds, including rapeseed, through expansion of planted area and more government policy support for oilseeds production, processing, technical extension and innovations, thus improving the competitiveness of the rapeseed industry.

SITUATION OF RAPESEED IN CHINA

In order of importance, the major oilseed crops produced in China are groundnut, soyabean and rapeseed. According to Oil World (2016b), as the third largest oilseeds crop, rapeseed represents 19% of the total oilseeds production in China. Five other oilseed crops include cottonseed, sunflower, sesame, linseed and castor. China is the third largest producer of rapeseed in the world after EU and Canada, representing 12% of the world's rapeseed production. *Figure 1* shows the rapeseed planted areas in China. According to the USDA (2016a), the yellow numbers in each province indicate the percentage of rapeseed they contribute to the total national production. However, due to limited available information, data on major and minor areas together with provincial production percentages are only available from the years 2008-2010.

Rapeseed is planted either in autumn (winter varieties) or in spring (summer varieties). The winter varieties have a longer vegetative period and give a better



Source: USDA (2016a).

USDA Agricultural Weather Assessments
World Agricultural Outlook Board

Figure 1. China's rapeseed: major and minor crop areas by province.

yield, but can only be grown in areas with a mild winter climate. In China, rapeseed is planted in winter on idle land and this is located mainly along the Yangtze River region that is favourable for rapeseed growth. Most of the rapeseed in China is planted every autumn from November through December. Rapeseed is at the bolting to flowering stage during February and March in the subsequent year. In April and May, rapeseed is at the flowering to ripening stage, and is harvested during the period from June to July. According to the BOABC (2017), most of the rapeseed area is concentrated in the central region making up 43% of the total area in 2015/2016. Hubei is the biggest province for rapeseed planted area, accounting for 0.85 million hectares (or 16%) of the total rapeseed area of 5.18 million hectares. This is followed by Hunan (at 0.77 million hectares or 15%) and Sichuan province (at 0.79 million hectares or 15%). Other provinces are considered minor rapeseed areas with less than 10% of the total rapeseed area. The capital city Wuhan in

Hubei province is an ideal place for product collection and distribution with convenient transportation by land, water and air, especially via the golden waterway of the Yangtze River, which leads directly to the sea and provides a short, economic and safe way for transportation (Wang, 2003). These conditions are beneficial for the distribution of rapeseed and also put Hubei in an advantageous position for the delivery of rapeseed and its products.

Planted Area

Based on the forecast by BOABC (2017), China's rapeseed planted area in 2016/2017 is forecast to decline by 10.5% to 4.63 million hectares from the preceding year (Table 1).

The harvested area for rapeseed constituted about 24.4% of the total harvested area for oilseeds (21.1 million hectares) in 2015/2016. For the past five years, the harvested area for rapeseed declined by 1.52 million hectares (or 21.1%) to 5.15 million hectares in 2015/2016 from 7.22 million hectares in

2011/12 (Figure 2). In 2016/2017, the harvested area is forecast to depreciate by 1.15 (or 22.3%) to 4 million hectares. This declining trend in harvested areas is due to declining yields, land constraints and the Chinese government's elimination of a price support policy for rapeseed in 2015. As a result of this situation, rapeseed has lost its attractiveness compared with other crops as local governments are offering more incentives to boost grain production. Therefore, the Chinese farmers have switched to other crops considered to be more lucrative, and this trend will very likely continue in the 2016/2017 season.

Similarly, the yield trend for rapeseed has shown a decline by 13.4% for the past five years to 1.55 t/ha in 2015/2016 from 1.79 t/ha in 2011/2012, and is forecast to further decline to 1.50 t/ha in 2016/2017 (Figure 2). Inadequate production tools, ranging from economies of scale, agronomic practices, technology resources and input quality, have contributed to the declining yields. According to BOABC (2016), planting

TABLE 1. CHINA'S RAPESEED PLANTED AREA BY PROVINCE

Region	Province	2014/15 (‘000 ha)	Share (%)	2015/16 (‘000 ha)	Share (%)	2016/17F (‘000 ha)	Share (%)
East	Anhui	495	8	356	7	286	6
	Jiangsu	376	6	261	5	197	4
	Zhejiang	142	2	122	2	105	2
Central	Hubei	1 001	16	845	16	793	17
	Hunan	930	15	768	15	674	15
	Jiangxi	492	8	413	8	397	9
	Henan	290	5	211	4	154	3
Southwest	Sichuan	890	14	790	15	731	16
	Guizhou	437	7	400	8	366	8
	Chongqing	163	3	141	3	136	3
Others	Winter rapeseed	256	4	230	4	207	4
	Summer rapeseed	719	12	641	12	587	13
Total		6 190		5 178		4 633	

Source: BOABC (2017).

Note: F - forecast.

of rapeseed is likely to reduce significantly in the main producing areas such as Hubei, Jiangsu, Anhui, Hunan and Henan.

In tandem with the declining planted area, production has also shown a steep decline by 38% (or 4.90 million tonnes) to 8 million tonnes in 2015/2016 from 12.9 million tonnes in 2011/2012. The biggest decline in rapeseed production of 2 million tonnes (or 25%) is forecast to occur, *i.e.* from 8 million tonnes in 2015/2016 to 6 million tonnes in 2016/2017.

Incentives/Subsidies

According to USDA (2016b), the Chinese government has discontinued its price support policy (*i.e.* the state purchasing at a higher floor price) for rapeseed production starting in 2015/2016, and as a result rapeseed prices and earnings have decreased nationwide. Before the elimination of this price support policy, in 2014/2015, the Chinese government used to encourage rapeseed production through a Minimum Price Purchase Programme whereby the

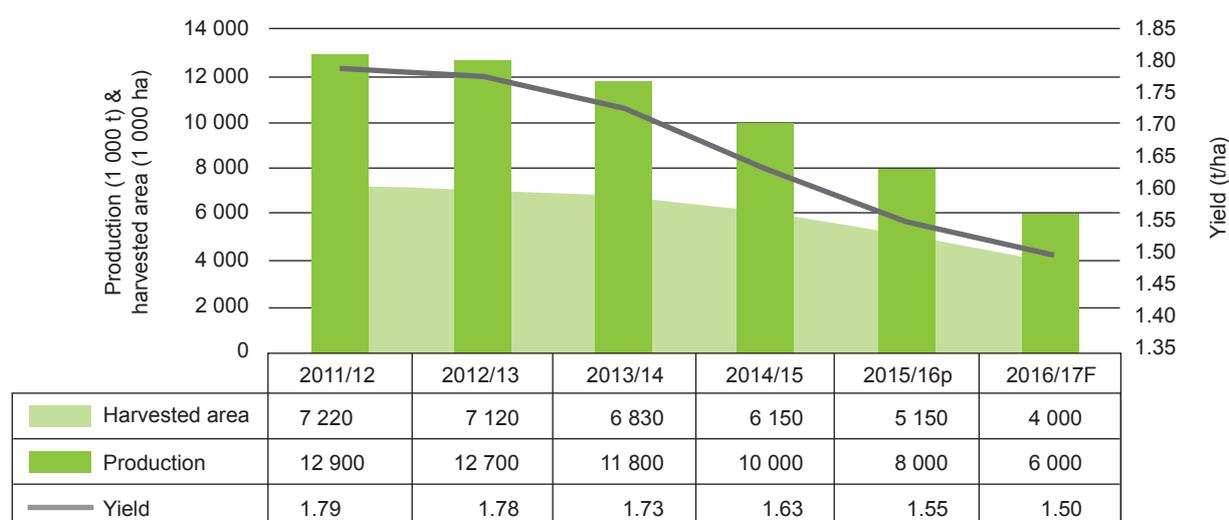
government fixed the rapeseed purchase floor price at RMB 5100/t (or USD 822/t), which was significantly higher than the price for imported rapeseed. Currently, the Chinese government still maintains its direct subsidy (*i.e.* planting seed subsidy) of RMB 150/ha (or USD 24/ha) to rapeseed farmers.

Crushing Industry

In China, rapeseed is the second largest oilseed crushed after soyabean. According to Oil World (2016a), a total of 101.2 million tonnes of oilseeds were crushed in October/September 2015/2016. Of this amount, 11.55 million tonnes were rapeseed, which had declined by 19.2% from 14.3 million tonnes in 2011/2012. As shown in Figure 3, for the past five years, rapeseed crushing exceeded production, and this is in contrast with planted area and production, both of which had declined. The reduction in crushing occurred sharply in 2014/2015 after recording a higher volume in the preceding seasons between 2011/2012 and 2013/2014. The high records during these periods

were mainly driven by the rapid expansion of the crushing capacity. Many of the crushing facilities were built and upgraded in the non-rapeseed-growing areas, particularly along the coastal provinces located in Guangxi, Fujian, Shandong, Liaoning and Guangdong, after Beijing restricted imports of Canadian rapeseed into the country's major rapeseed-growing areas due to concerns over blackleg disease since 2009 (Shuping and Wills, 2011).

Currently, the rapeseed crushing capacity is about 40 million tonnes per year and only about 30% is being utilised. China has not enough domestic supplies to meet such a large capacity, resulting in the underutilised crushing capacity estimated to be as high as 70%. Crushing of rapeseed is forecast to continue to decline by 14.3% from the previous year, to only 9.90 million tonnes in 2016/2017, as rapeseed supplies get tighter. Some of the decline in production can be offset by a reduction of stocks. For example, the Chinese government has accelerated the sales of rapeseed oil from the state reserves in the domestic market. Given the



Note: p - preliminary; F – forecast.
Source: Oil World (2016a).

Figure 2. China's rapeseed: harvested area (x 1000 ha), production (x 1000 t) and yield (t/ha).

current low prices for oil and meal, resulting in negative crushing margins, investors will have less incentive to expand the crushing capacity further in 2015/2016 and 2016/2017.

Price Regime

In 2014, the Chinese government maintained the rapeseed purchase floor price at RMB 5100/t (or USD 822/t), which was significantly higher than the price for imported rapeseed at USD 476/t. In 2015, government purchase of rapeseed

at this high floor price was discontinued. However, to date the Chinese government still maintains the planting seed subsidy of RMB 150/ha (or USD 24/ha) to farmers (Figure 4).

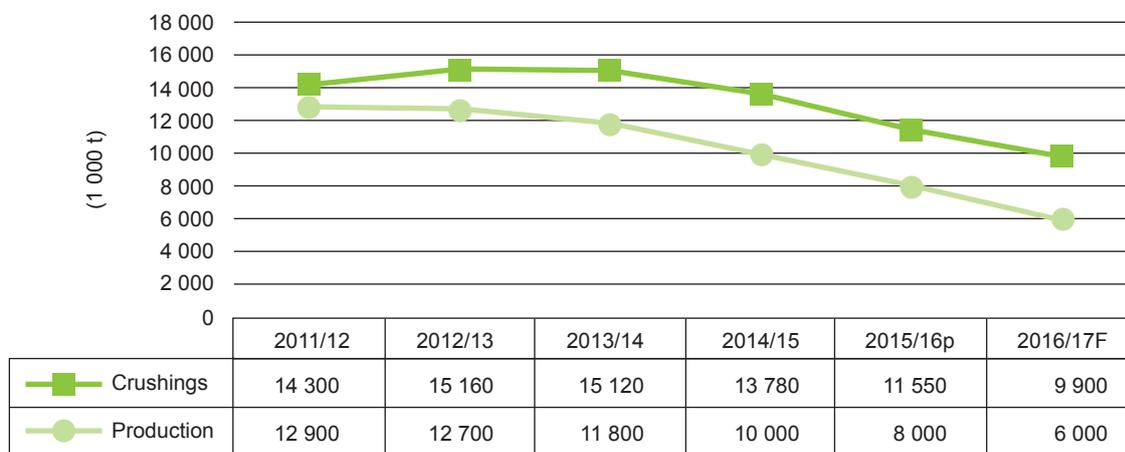
The wholesale price for rapeseed oil remained generally stable in 2015, ranging from RMB 6000 to RMB 6200/t (or USD 893 to USD 923/t) while that of palm oil had declined by 10% in December 2015 from January 2015. The price difference between palm oil and rapeseed oil widened further in December 2015 as compared

with the situation in January 2015, signalling an advantage for palm oil to gain more market share (Figure 5).

World market price for rapeseed in 2016 were at the lowest (USD 414/t), down slightly by 0.48% one year, whereas rapeseed oil prices were up by USD 49 (or 6.3%) from a year earlier (Figure 6).

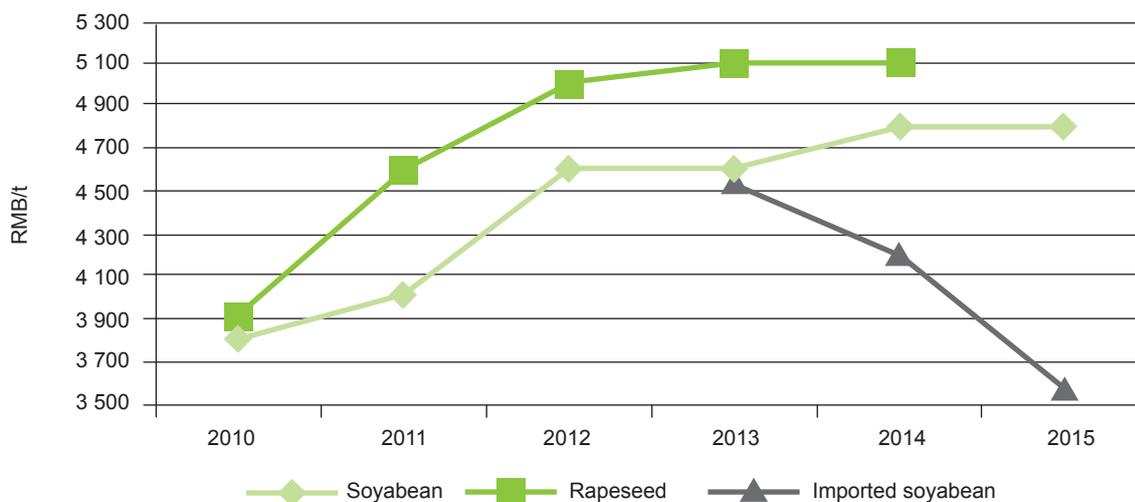
Rapeseed Trade

Export of rapeseed is insignificant because of insufficient supplies for export due to declining production



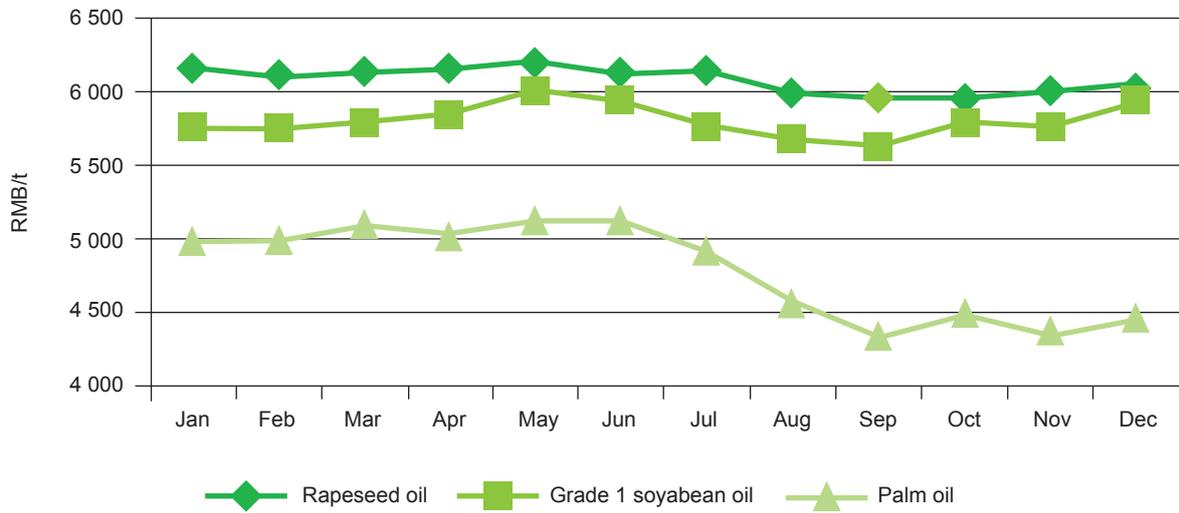
Note: p - preliminary; F – forecast.
Source: Oil World (2016a).

Figure 3. China's rapeseed: production and crushing (x 1000 t).



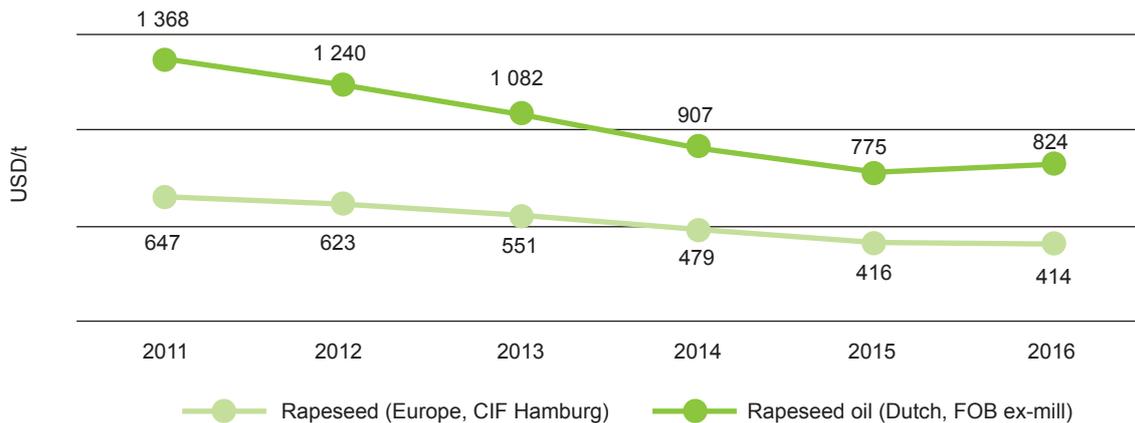
Note: From 2015, state purchase of rapeseed at high floor price ended.
Source: USDA (2016b).

Figure 4. State purchase floor price for rapeseed (RMB/t), 2010-2015.



Note: Trade term used in sales contracts are cost, insurance and freight (CIF) and freight on board (FOB).
 Source: Oil World (2017).

Figure 5. China's wholesale price for major vegetable oils (RMB/t), 2015.



Source: USDA (2016b).

Figure 6. World market prices of rapeseed and Rapeseed Oil (USD/t), 2011-2016.

and growing demand from the domestic market. Rapeseed exports are reported at only 100-300 t between 2011 and 2016 (Figure 7).

Similar to EU, China is highly dependent on imports of oilseeds. In 2016, major oilseeds imported were soyabean at 83.23 million tonnes (or 93.6% of total imports amounting to 88.91 million tonnes), followed by rapeseed at 3.57 million tonnes (4%). China is the world's largest importer of

soyabean and rapeseed, which account for 62.5% and 26.1% of total oilseeds imports, respectively. The rapeseed imports increased substantially from just 1.26 million tonnes in 2011 to 5.08 million tonnes in 2014, up by four-fold (or 303%). However, the imports declined by 20.2% (or 904 700 t) to 3.57 million tonnes in 2016 from the year before. The low import price and higher rapeseed imports in 2014 partly resulted in

an oversupply of rapeseed, thus leading to less imports in 2015 and 2016 (Figure 7).

In China, the number of rapeseed importers are limited, and the large importers are Yihai Kerry, Chinatex, China National Cereals, Oils & Foodstuffs Corporation (COFCO), Dongguan Fuzhiyuan and Xiamen Yinxiang Oil. For the period from January-December 2016, the top three importers Yihai Kerry, Chinatex and COFCO

imported in total 2.0 million tonnes of rapeseed, accounting for 56% of the total rapeseed import volume. In 2016, Yihai Kerry imported 745 107 t, accounting for 21%, Chinatex imported 733 038 t (21%) and COFCO imported 522 007 t (15%) (Table 2).

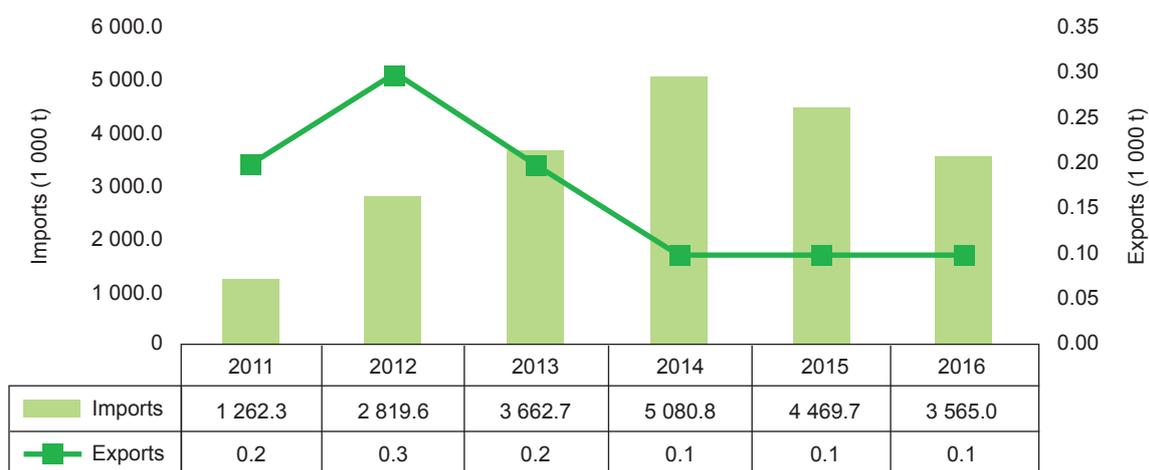
China imports rapeseed mainly from Canada, Australia, Mongolia and Russia. In 2016, Canada accounted for 96% of the total rapeseed imports, followed by Australia and Mongolia (Figure 8). In view of phytosanitary concerns, the Chinese rapeseed import policy restricts entry of imports to only non-rapeseed-producing regions (namely, Guangdong, Guangxi and Fujian provinces).

However, the establishment of rapeseed crushing plants in the non-rapeseed areas has minimised the impact of this policy on imports from the two major suppliers to China, i.e. Canada and Australia. Furthermore, the Administration of Quality, Supervision, Inspection and Quarantine (AQSIQ) has also reached similar agreements with Russia and Mongolia on rapeseed imports for crushing (FAO, 2017a).

Australian rapeseed imports resumed in 2013, after China removed the three-year ban imposed on the former that was put in place since 2009 due to concerns over contamination by a fungal disease. In late 2013, the Chinese government started to authorise

rapeseed imports from Russia via the border city of Manzhouli. The importation was liberalised due to the growing Chinese demand for rapeseed (Figure 8).

Since March 2016, China has strengthened the inspection of imported rapeseed from Canada because of blackleg disease. In April 2016, China announced the implementation of stringent standards on Canadian rapeseed whereby not more than 1% of foreign material is allowed in Canadian shipments (compared to the current limit of 2.5%). However, the implementation of this regulation was delayed as the two countries tried to resolve the problems. In October 2016, China



Source: Oil World (2017).

Figure 7. China's rapeseed imports and exports (x 1000 t), 2011-2016.

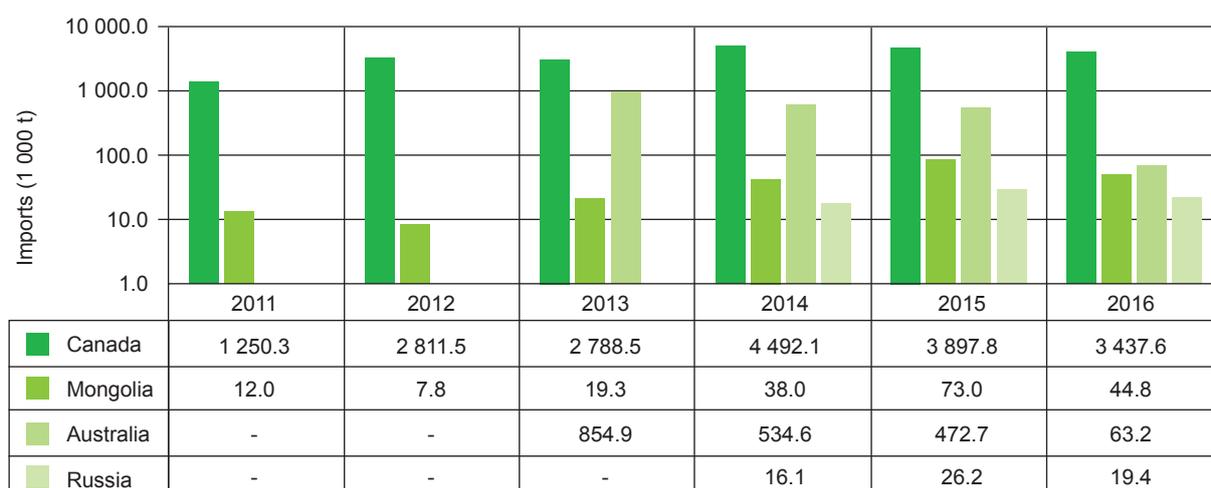
TABLE 2. CHINA'S MAIN RAPESEED IMPORT COMPANIES (t)				
No.	Company	2016	2015	Market share in 2016 (%)
1.	Yihai Kerry	745 107	1 064 158	21
2.	Chinatex	733 038	909 005	21
3.	COFCO	522 007	623 430	15
4.	Dongguan Fuzhiyuan	483 775	539 157	14
5.	Xiamen Yinxiang Oil	428 231	462 271	12
	Others	652 859	871 636	17
	Total	3 565 017	4 469 657	100.0

Source: BOABC (2017).

and Canada reached an agreement on the foreign material content in rapeseed shipments. The agreement is expected to facilitate the normalisation of rapeseed imports from China's major suppliers.

Tariff Regime

Generally speaking, China's import tax on imported rapeseed is zero to meet the huge requirement for the domestic crushing industry.



Source: Oil World (2017).

Figure 8. China's rapeseed imports by country (x 1000 t), 2011-2016.

However, for vegetable oils, import taxes are higher than for oilseeds in order to protect the domestic crushing industry, which is mainly for soyabean (Table 3).

SITUATION OF RAPESEED OIL

Production

In 2016, China's rapeseed oil production was down by 19.8% to 4.24 million tonnes from 5.29 million tonnes in 2015 (Figure 9), and the biggest reduction is expected in October/September 2016/2017 with production

forecast at only 3.90 million tonnes. The decline in oil production has been offset by sales of rapeseed oil from the state reserves since late 2015 and by higher imports of rapeseed oil.

Rapeseed Oil Trade

China is the world's second largest importer of rapeseed oil, accounting for almost 20% of the global rapeseed oil imports, coming after USA. In 2016, rapeseed oil was the third largest vegetable oil imported by the country after palm oil and sunflowerseed oil, making

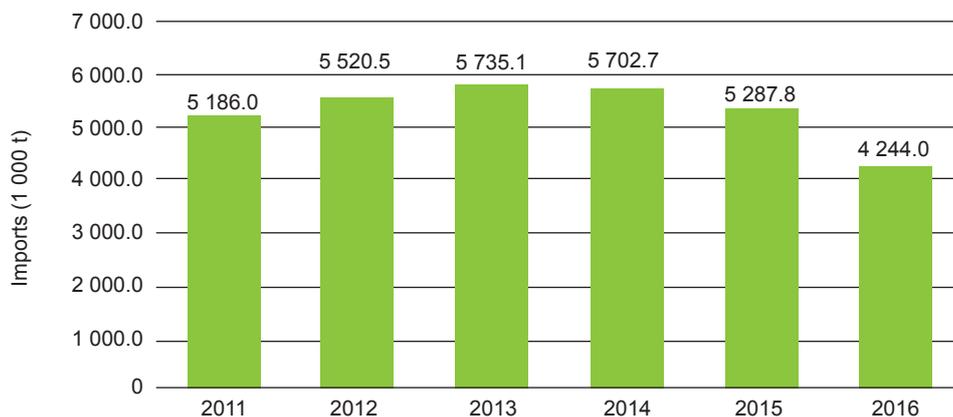
up a share of 8.6% of the total amount of oils and fats imported (8.14 million tonnes). China's rapeseed oil imports increased significantly by 2.6-fold from 0.59 million tonnes in 2011 to 1.53 million tonnes in 2013, before plunging to 0.70 million tonnes in 2016 (Figure 10).

China's vegetable oil imports remained low in 2016 because the 2.0 million tonnes of rapeseed oil reserve sold in the market reached end-users, thus impacting the vegetable oil market in 2016. However, imports of rapeseed oil are forecast to rise moderately to 0.93 million tonnes in October/September 2016/2017. This will more than offset the sharply reduced production. In 2016, the country imported 601 800 t of rapeseed oil largely from Canada (accounting for 86% of total rapeseed oil imports), up by 8.8% against 553 100 t in same period last year (Figure 11).

Figure 11 shows China's rapeseed oil imports from major exporting countries, i.e. Canada, EU, Australia, Ukraine and Russia. Most of China's rapeseed oil imports are largely dependent on Canada's rapeseed supplies. Imports from Canada had declined for the

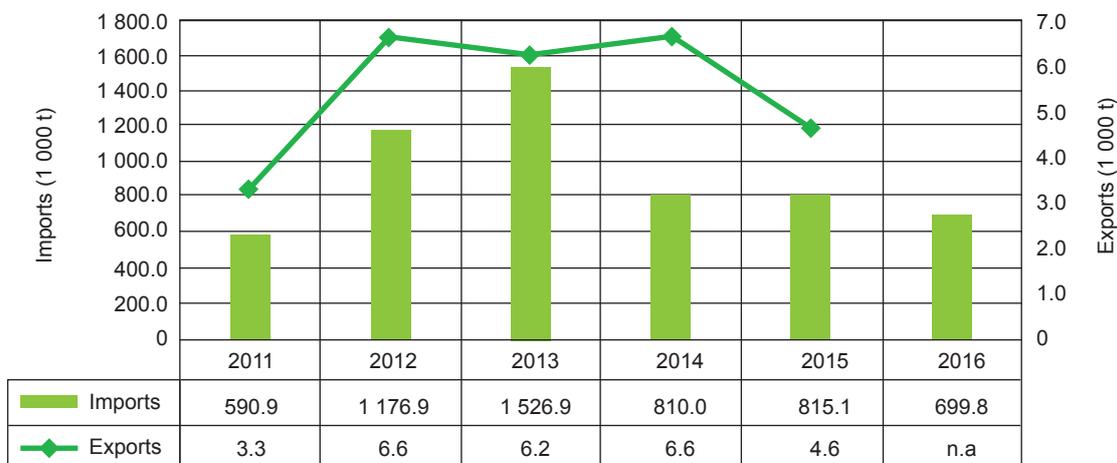
TABLE 3. CHINA'S IMPORT DUTIES ON SELECTED OILSEEDS AND OILS	
Oilseed	MFN import duty (%)
Soyabean	0
Yellow/black/green soyabean	3
Rapeseed	0
Sunflowerseed	0
Oils	MFN import duty (%)
Palm oil, crude	9
Palm oil, stearin	8
Palm kernel oil, crude	9
Soyabean oil	9
Rapeseed oil	9
Sunflower oil	9

Source: WorldTariff (2016).



Source: Oil World (2016b).

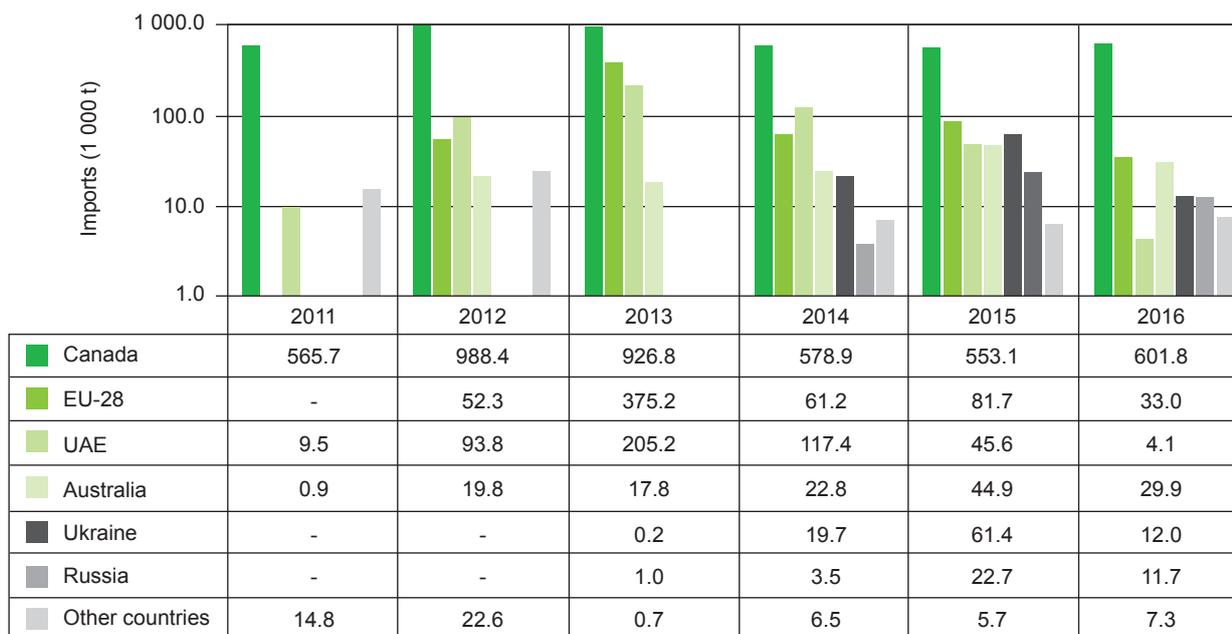
Figure 9. China's rapeseed oil production (x 1000 t), 2011-2016.



Note: n.a. - not available.

Source: Oil World (2016b).

Figure 10. China's rapeseed oil imports and exports (x 1000 t), 2011-2016.



Source: Oil World (2016b).

Figure 11. China's rapeseed oil imports by country (x 1000 t), 2011-2016.

past three years as the Chinese increased purchases of rapeseed oil from Australia, Ukraine and Russia in recent years.

In terms of exports, the amount of oils and fats exported by China is small as most of the oils and fats produced are consumed domestically. Nevertheless, total exports of oils and fats increased by 25.4% to 200 800 t in 2016 from 160 100 t in 2011. China's rapeseed oil exports remained at a very low level of 4600 t in 2015, down by 30.3% from 6600 t recorded in 2014 (Figure 10). The country exports rapeseed oil primarily to neighbouring regions in China, such as Hong Kong and Macau.

State Reserves of Rapeseed Oil

Since late 2015, China began selling her rapeseed oil from the state reserves following low production of rapeseed and rapeseed oil, and to reduce the stock level which was at 4.56 million tonnes. Furthermore, the Central Chinese Government had terminated the rapeseed procurement and storage scheme nationwide in a move to reduce stock levels; also, the oil in reserve

was too old to be kept any longer. It is expected that the Chinese government will still maintain a certain volume of rapeseed oil as a 'strategic oil reserve', given China's large vegetable oil consumption.

In October 2016, without official public notice, the Chinese government announced the resumption of sales of rapeseed oil from the state reserves after these were suspended in June 2016 (after 1.8 million tonnes sold). As of 19 October 2016, a total of 200 000 t of rapeseed oil had been sold. China's sales of 2.28 million tonnes of rapeseed oil from the reserves, from December 2015 to June 2016, partially suppressed rapeseed imports in 2016. As of 11 January 2017, a total of 1.39 million tonnes of rapeseed oil have been offered, virtually all of which were bought up by traders at average auction prices which had decreased gradually to RMB 6549/t (USD 944/t) after peaking at RMB 7172 t (USD 1034/t) in mid-December 2016 (FAO, 2017b).

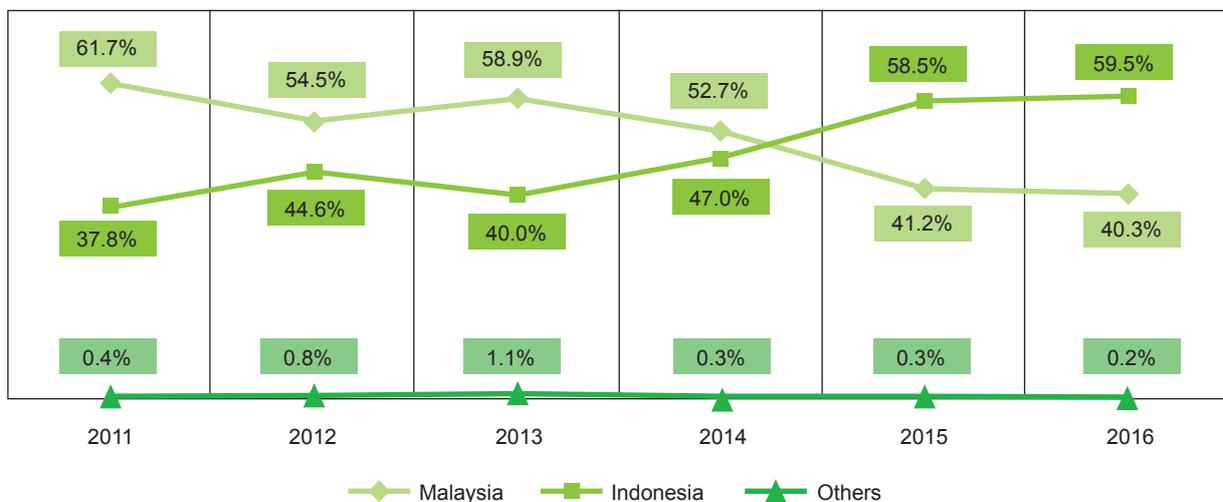
Imports of Palm Oil from Malaysia

In the vegetable oils import mix in China, palm oil is the largest

component. Malaysia maintained her position as the largest palm oil exporter to China for 20 years (1994-2014). Back in 2011, Malaysian palm oil accounted for 62% of the total palm oil imports, while Indonesia accounted for only 38%. However, in 2015, Indonesia had taken over the bigger share of China's palm oil imports. In 2016, the share of Indonesian palm oil had skyrocketed to almost 60%, with Malaysian palm oil making up the remaining 40% or so (Figure 12). The decline in Malaysia's market share could be attributed to the competition between Malaysia and Indonesian in palm oil prices.

For the past five years, exports of Malaysian palm oil and palm-based products to China have declined steeply by 34.4% to 2.86 million tonnes in 2016 compared with 4.36 million tonnes in 2012. The decline was due to China's higher imports of soyabean for domestic crushing, which had grown sharply by 42.6% to 83.23 million tonnes in 2016 from only 58.38 million tonnes in 2012.

Major palm oil products exported to China in 2016 were refined, bleached and deodorised (RBD) palm olein (accounting for 68% of all the palm oil products



Source: Oil World (2016b).

Figure 12. China's imports of palm oil from major countries, 2011-2016.

exported), followed by RBD palm stearin (18%). A slowdown in economic growth in China also reduced the demand by the food processing industries and the catering sector, as did competition from Indonesian palm oil, which had been enjoying a comparative advantage due to Indonesia's export tax structure which incentivised palm-based downstream products (Figure 13).

Industry sources reported that palm oil usage has declined because less palm oil has been used in blended cooking oil since 2014; this coupled with favourable lower prices for soyabean oil and rapeseed oil have taken some market share away from palm oil. The food processing industry in China uses large amounts of palm oil in processed foods, especially in instant noodles. However, China's rapid growth in instant noodle

production has stagnant since 2014 and has declined slightly in 2015.

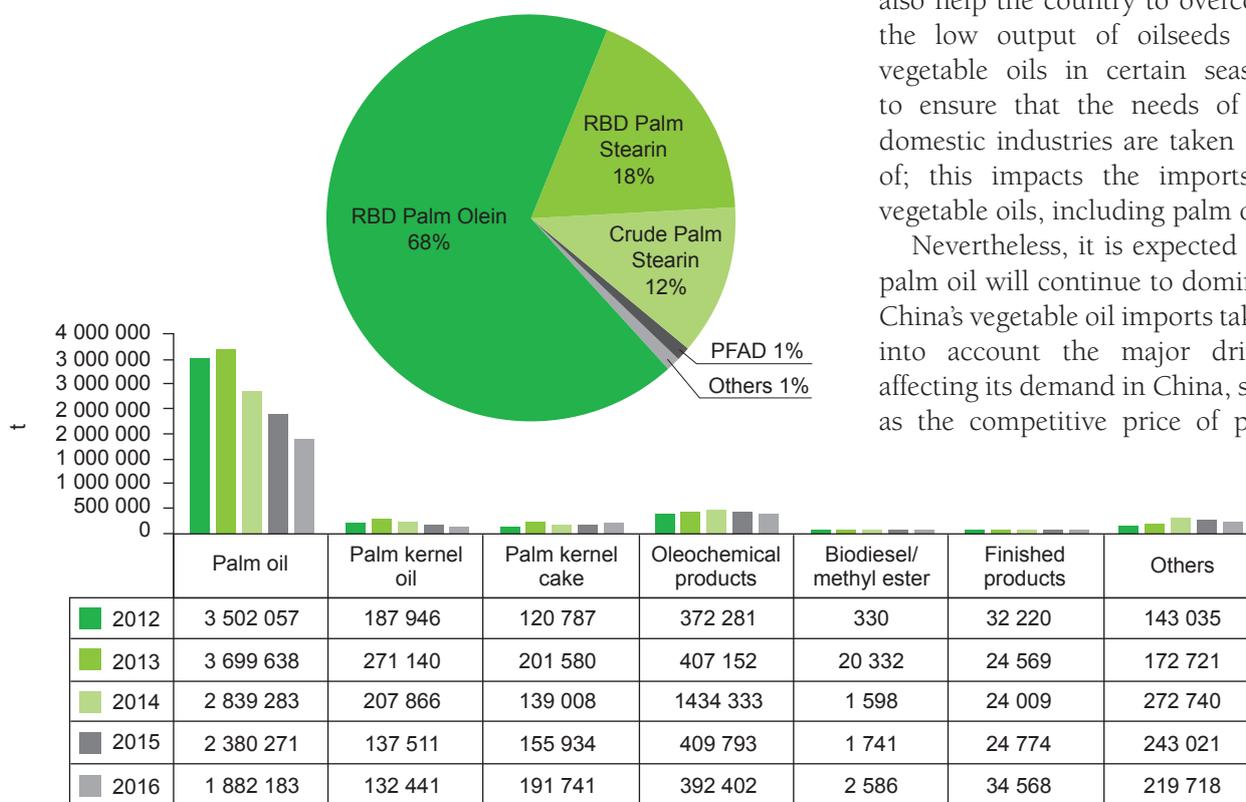
Taking into account the saturated instant noodle market, further expansion of palm oil use by the instant noodles industry is unlikely to occur in 2016. In 2016, China's palm oil imports declined by 23.8% to just 4.59 million tonnes against 6.03 million tonnes in 2015. The weaker palm oil imports were due to a combination of factors: resumption of export duty in exporting countries; weak demand for palm oil; ample supply of other vegetable oils; and depreciation of the Chinese currency. Despite the weak demand, China's palm oil imports in 2017 are expected to recover moderately, slightly above level in the previous year, given low domestic palm oil stocks in 2016 and thus, an even greater need to replenish them. Domestic palm oil stocks are estimated at less

than half of the average level in the past five years.

Based on the lower rapeseed output and high domestic requirements for food use, the impact to Malaysia's palm oil trade in China is mild. Nevertheless, Malaysia faces indirect competition from rapeseed as well as soyabean, in terms of the huge soyabean and rapeseed intake by the country. China's domestic crushing industry crushes both soyabean and rapeseed for oil and meal, resulting in an ample supply availability of rapeseed oil as well as soyabean oil from the crushing of imported rapeseed and soyabean. Therefore, China tends to import less palm oil from Malaysia.

Furthermore, rapeseed and other oilseeds have an advantage over palm oil in that the oilseeds can be stored for a longer period and crushed whenever the need arises. The Chinese state reserves for oilseeds and vegetable oils also help the country to overcome the low output of oilseeds and vegetable oils in certain seasons to ensure that the needs of the domestic industries are taken care of; this impacts the imports of vegetable oils, including palm oil.

Nevertheless, it is expected that palm oil will continue to dominate China's vegetable oil imports taking into account the major drivers affecting its demand in China, such as the competitive price of palm



Note: RBD - refined, bleached and deodorised. PFAD - palm fatty acid distillate. Source: MPOB (2016).

Figure 13. Malaysia's exports of oil palm products to China (t), 2012-2016.

oil relative to other vegetable oils, its wide use in the food processing industry as well as the high use of palm oil in blended cooking oil. In such a scenario, it is an advantage for palm oil to gain more market share given the limited vegetable oil supplies in China's domestic market.

Consumption

Total consumption of oils and fats amounted to 36.5 million tonnes in 2015, up by 10.9% from 32.9 million tonnes in 2011. The main oils and fats consumed in 2015 were soyabean oil at 13.1 million tonnes (35.9%), followed by rapeseed oil at 6.5 million tonnes (17.8%), palm oil at 5.8 million tonnes (15.9%) and lard at 3.7 million tonnes (10.1%).

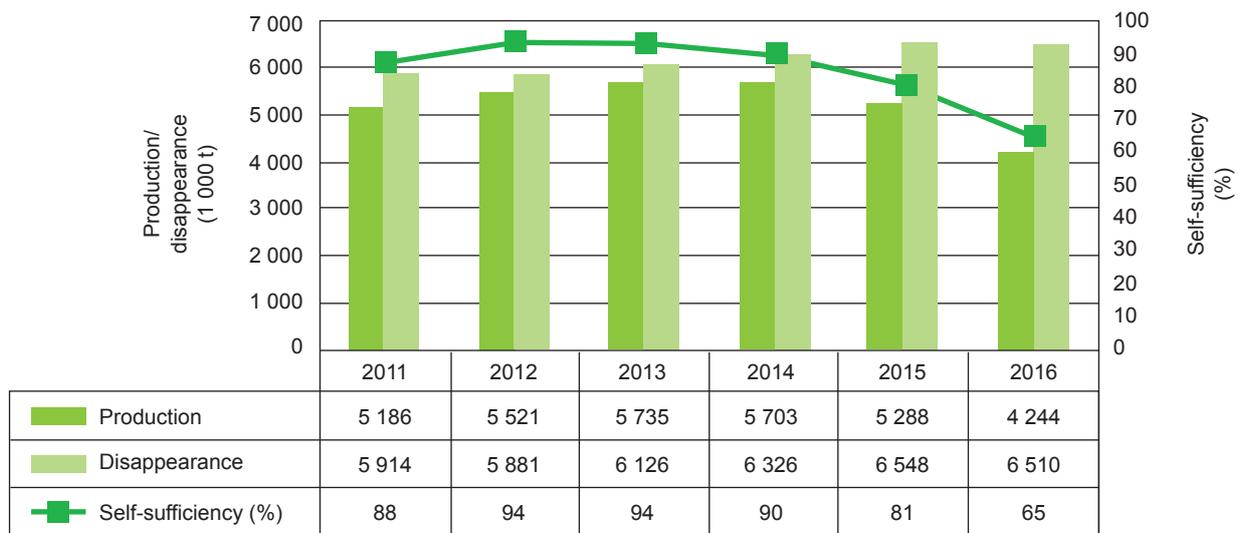
For the last five years, China's rapeseed oil consumption increased by 10.1% to 6.51 million tonnes in 2016 from 5.91 million tonnes in 2011. With the decline in rapeseed oil production to 4.24 million tonnes, sufficiency has reduced to cover only 65% of domestic requirements of this oil.

In general, China is self-sufficient in rapeseed oil consumption as the remaining supply gap is mostly satisfied by imports of rapeseed oil from Canada (Figure 14).

In China, soyabean oil continues to be the primary vegetable oil consumed domestically; this is followed by rapeseed and palm oil. Generally, soyabean and rapeseed oils are mainly for food uses whereas for palm oil about 60% is for use in food applications while the rest is for industrial use. China's vegetable oil demand is increasingly being met by the large domestic crushing sector which favours imports of oilseeds, especially soyabean and rapeseed. As for palm oil, its price competitiveness relative to soyabean and rapeseed oils is a major factor affecting its demand. In China, blending palm oil with other vegetable oils for cooking is a popular practice which is likely to increase the usage of palm oil given the current competitiveness of its price. In 2016, domestic consumption of soyabean, rapeseed and palm oils reached 14.2 million, 6.51 million and 5.09 million tonnes, respectively (Figure 15).

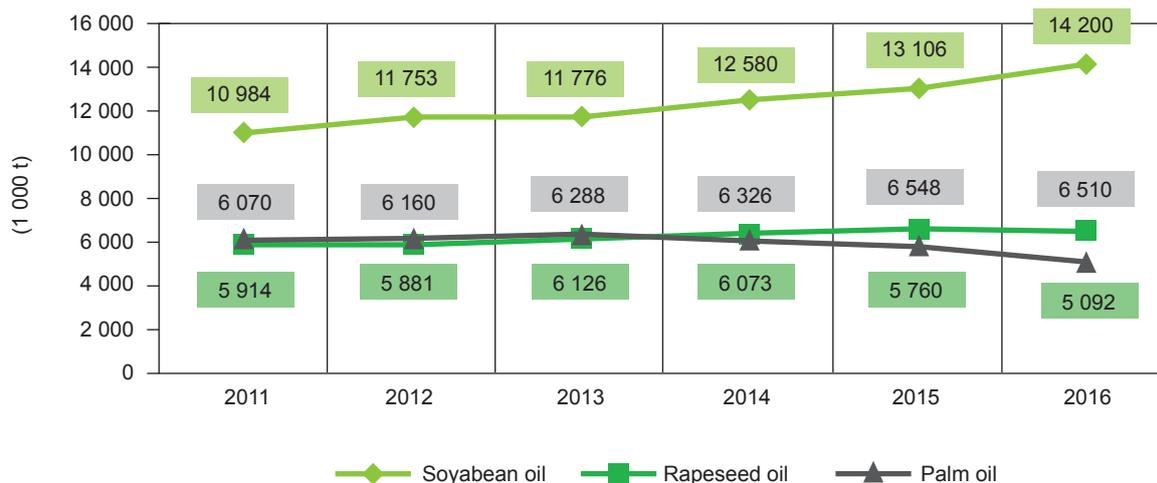
Table 4 shows the supply and demand situation of rapeseed oil in the country. The rapeseed oil market was determined in 2016 by large sales from the government reserves, which was at about 2.28 million tonnes (from late 2015 until June 2016). Opening stocks of rapeseed oil was highest in 2016 at 4.56 million tonnes driven by the large reserve stocks released into the market. Nevertheless, the total supply of rapeseed oil was down by 5.7% to 9.50 million tonnes in 2016 compared with the previous year because rapeseed oil production had declined by 19.7% to 4.24 million tonnes in 2016.

Imports of rapeseed oil reached 699 800 t in 2016, showing a drop from the preceding year despite a steep decline also in domestic production. Total rapeseed oil consumption was seen to be down moderately by 1.16% to 6.51 million tonnes in 2016 from the year before, probably as a result of the low supply availability of rapeseed oil. With declining total supply and high consumption, closing stocks was recorded at 3 million tonnes in 2016, implying a



Source: Oil World (2016b).

Figure 14. China's rapeseed oil production vs. consumption, 2011-2016.



Source: Oil World (2016b).

Figure 15. China's consumption of the three major vegetable oils (x 1000 t), 2011-2016.

closing stocks-to-use ratio of 46.1% for carryover to the following year (Table 4).

OILSEEDS PRODUCTION PLAN BY 2020

On 15 August 2016, China's National Development and Reform Commission (NDRC), in collaboration with the Ministry of Agriculture and State Forestry Administration, published the 'National Oilseed Development Plan (2016-2020) which set a target for total oilseed production at 59.8 million tonnes by 2020 from 45.4 million tonnes in 2014. Oilseeds covered under this Plan include rapeseed, groundnut, soyabean and camellia. The planned target is to be reached through area expansion with an additional area of 4.16 million hectares and through yield gains (Table 5).

The Plan indicates that the Chinese government will provide policy support for oilseeds production, processing, technical extension and innovation. Specific measures have not yet been announced. It remains difficult to

predict whether this target will be realised, in particular for soyabean and rapeseed, as the government's policy generally favours grain production and grain security (Table 6). A steady growth in domestic oilseeds supply is likely to slow down the growth rate of oilseed imports.

Strengths

Given the large domestic crushing sector, China continues to prefer oilseed imports for crushing to meet her domestic demand for oil and meal. The growth in the feed industry and advancements in livestock and aquatic farming are spurring this demand and the need for imports. As the world's largest importer of rapeseed, China absorbs 30% of total rapeseed imports, dominating the global rapeseed market. The country will remain highly dependent on oilseed imports (soyabean and rapeseed) to feed its large population of 1.38 billion and to satisfy the growing demand for oil and meal. With limited domestic production, China supplements

her domestic oilseed supply with imports largely from Canada and Australia. As a result of the bumper state reserves of rapeseed oil estimated at 6.41 million tonnes, the decline in rapeseed crushing will be compensated by the sales of rapeseed oil from these reserves. The country's cumulative sales of state rapeseed oil reserves reached 2.28 million tonnes (ending in June 2016), satisfying part of the rapeseed product market for the rest of 2016.

Weaknesses

In general, China's domestic oilseed production growth continues to be hampered by limited arable land and recent domestic agricultural and food security policies favouring grain production such as soyabean, corn and rice. The government eliminated its price support for rapeseed production in 2015 and the prices have decreased dramatically. The government policies used to encourage rapeseed production through a Minimum Price Purchase Programme and a direct seed

TABLE 4. CHINA'S RAPESEED OIL BALANCE (x 1000 t)

	2011	2012	2013	2014	2015	2016
Opening stocks	1 720.0	1 860.0	2 670.0	3 800.0	3 980.0	4 560.0
Production	5 186.0	5 520.5	5 735.1	5 702.7	5 287.8	4 244.0
Imports	590.9	1 176.9	1 526.9	810.0	815.1	699.8
Total supply	7 496.9	8 557.4	9 932.0	10 312.7	10 082.9	9 503.8
Exports	3.3	6.6	6.2	6.6	4.6	n.a.
Disappearance	5 913.6	5 880.7	6 125.8	6 326.0	6 548.3	6 510.0
Total consumption	5 916.9	5 887.3	6 132.0	6 332.6	6 552.9	6 510.0
Closing stocks	1 860.0	2 670.0	3 800.0	3 980.0	4 560.0	3 000.0
Stocks/usage ratio	31.44%	45.35%	61.97%	62.85%	59.59%	46.08%

Note: n.a. - not available.

Source: Oil World (2016b).

TABLE 5. CHINA'S NATIONAL OILSEED DEVELOPMENT PLAN (2016-2020)

	Soyabean		Rapeseed		Groundnut	
	Production (Mn t)	Area (Mn ha)	Production (Mn t)	Area (Mn ha)	Production (Mn t)	Area (Mn ha)
2020	18.9	9.33	16.2	8	18.7	4.8
2014	12.15	6.8	14.77	7.59	16.48	4.6

Note: Mn - million.

Source: USDA (2016c).

TABLE 6. SWOT (strengths, weaknesses, opportunities and threats) ANALYSIS

Strengths	Weaknesses
<ul style="list-style-type: none"> • Large crushing sector • World largest importer of rapeseed • Bumper state reserves of rapeseed oil 	<ul style="list-style-type: none"> • Changes in government policy • Stockpile of old rapeseed oil • Inadequate adoption of high-yield cultivation and production technologies
Opportunities	Threats
<ul style="list-style-type: none"> • Huge market demand due to large populations (rising income, urbanisation, growing animal feed sector) • Government policy support (direct subsidy, liberalised lending from the Central Bank) 	<ul style="list-style-type: none"> • Domestic rapeseed lacks competitive ability (high cost) • Spread of blackleg disease – dispute with Canada

subsidy. Changes in policy and lower market prices have reduced earnings from this commodity. At the same time, monitoring the movement of rapeseed oil reserves remains extremely difficult. Most of these reserves have been in storage

for more than two years. From time to time, the government would replenish (by purchases or sales) the rapeseed oil in state reserves to regulate the domestic vegetable oils supply and prices. As the reserves continue to age, there will be more

pressure for the government to hold auctions more frequently; this results in uncertainty in China's vegetable oil market as a whole and weak recovery of the rapeseed oil market in particular. However, the government sales can be affected

by both high bidding prices and quality issues (poor quality), as the products have been kept in storage for several years. Furthermore, inadequate production technology also limits the potential for rapeseed yield gains and production growth. China's rapeseed production has stagnated over the years although consumption has been increasing. It is necessary for the country to develop high-yielding rapeseed varieties and innovations in cultivation technologies, such as agronomic practices, mechanised production technology and quality of inputs, to produce high quality rapeseed and to increase yield potential.

Opportunities

Rising income, rapid urbanisation and higher demand for rapeseed meal from the animal feed industry as well as for rapeseed oil from the food sector are the major contributing factors for the increase in demand for rapeseed and its products. Although the state purchases of rapeseed at high floor price were discontinued in 2015, the government still maintains its support policy, *i.e.* a planting subsidy of RMB 150/ha (USD 24/ha) for rapeseed farmers with the aims of protecting local farmers and of ensuring that the farmers do not abandon their farms, as well as of improving food security. The subsidy payments are based on actual planted area. In early 2015, the Chinese Central Bank raised its re-lending operations by 50 billion Yuan (USD 8 billion) to provide support to small businesses and to the farming community. Previously, the Bank was reluctant to support small businesses and the farming community with credit. This initiative is meant to help reverse the current slowdown in China's economic growth. Additionally, the phytosanitary protocols signed by

China and Russia in February 2016 allow the exportation of rapeseed that is grown in Far East Russia to China which is likely to benefit rapeseed trade between the two countries.

Threats

Domestic rapeseed lacks competitive ability because of the high cost of production resulting in low profits and negative margins. For instance, in 2014, the purchase floor price for domestic rapeseed was RMB 5100/t (or USD 755/t) which was significantly higher than the price of imported rapeseed at RMB 3236/t (or USD 479/t). With the changes in policy, coupled with eroded domestic production and high production costs, rapeseed oil price has become less competitive against other major vegetable oils, such as soyabean and palm oils. Therefore, China remains highly dependent on imported rapeseed and rapeseed oil. In 2009, China restricted the import of rapeseed to prevent blackleg disease from being introduced into the country as the incidence of this disease affecting rapeseed was observed in Canada and Australia. As a result, China announced the implementation of new stringent standards that state that not more than 1% foreign material is allowed in rapeseed shipments (as opposed to the 2%-2.5% range permitted previously), particularly for shipments from Canada, starting in April 2016. This regulation affected Canadian rapeseed exporters and created a trade dispute between the two countries as China is a major buyer of Canadian rapeseed. Arising from the trade dispute, China's rapeseed industry was impacted by a sharp decline in domestic rapeseed crushing and had to turn to domestic rapeseed supplies which cost more compared with imported rapeseed.

PROSPECTS IN CHINA'S RAPESEED INDUSTRY

In general, China's domestic oilseeds production continues to decline while demand for oilseed products surges ahead. Lower profits from rapeseed due to the policy changes in 2015 are seen to reduce total rapeseed and rapeseed oil production in 2016. Overall in 2016, rapeseed production plunged in response to a further sizable decline in planting for the fifth consecutive year due to limited arable land and policies favouring the planting of grain crops. The net effect will be a further reduction of crushing volume and a decline in rapeseed oil production. This takes into account the stagnant yield due to inefficient production systems, a lack of improved technologies and input quality that limit the potential for rapeseed yield gains. The discontinuation of government support of rapeseed purchase at a high floor price has resulted in domestic rapeseed price remaining uncompetitive.

In addition, the reduction of rapeseed supplies and crushings in China is offset by the sales of rapeseed oil from the government's state reserves, thus limiting the country's vegetable oil imports. However, in view of the resumption of China's purchases of Canadian rapeseed after the China-Canada rapeseed dispute was resolved, additional imports are expected in the coming years. Similarly, rapeseed oil imports from Canada signalled an upward trend in 2016 and the trend is likely to continue in the future. Furthermore, China's high GDP growth at 6.7% in 2016 continues to add to the disposable income of consumers. Fast urbanisation and population growth accelerate demand for more vegetable oils and fats imports, which currently stands at 26.6 kg per capita consumption.

CONCLUSION

China will continue to be the world's major importer of oilseeds, particularly soyabean and rapeseed, in view of her limited oilseeds production and growing domestic demand. Apart from importing oilseeds, palm oil is also the main vegetable oil imported due to its price competitiveness and high usage in the food sector. The competitive price of palm oil, relative to soyabean and rapeseed oils, is a major factor affecting its demand in China. Nevertheless, given the large vegetable oils consumption, palm oil continues to dominate

China's vegetable oil imports and is forecast to rebound moderately to 5.25 million tonnes in October/December 2016/2017 from 4.80 million tonnes in October/December 2015/2016. In such a scenario, there is an opportunity for palm oil to gain more market share given the low stocks of vegetable oil supplies in China's domestic market.

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