



Carter Pecan
ARNCO INC

ANALYSIS: Pecan Nut Export to China and Market Demographics



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INSHELL PECAN EXPORTED TO CHINA

**CHINA RETAIL MARKET:
CONSUMERS TODAY AND THE FUTURE**

INSHELL PECAN IMPORTED BY CHINA

HOW TO KEEP EXPORT AND PRICES STRONG



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CHINA RETAIL MARKETS CONSUMERS OF TODAY ...AND TOMORROW

... the number keeps rising in China

China is the largest international market for Tree Nuts outside the U.S.

China Market Demographics



- ▶ 1.4 Billion people in China
- ▶ China will gain 182 Million consumers in the next 10 years
- ▶ China's middle class is now the size of the entire U.S. population
- ▶ By 2020, 81% growth in consumption is projected
- ▶ From "CHASING WEALTH" to "CHASING HEALTH" = EAT RIGHT



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Positive Numbers for 2017 China Exports

- Shipments to China accounted for 51% of all US pecan exports compared to 44% last year. Overall exports to China are up 27%.
- CHINA PECAN IMPORT DUTY REDUCED FROM 10% TO 7% IN DECEMBER 2017.

****PECAN IMPORT DUTY FROM AUSTRALIA WILL BE 0% IN 2019!**

E-Commerce Penetration Growing Rapidly

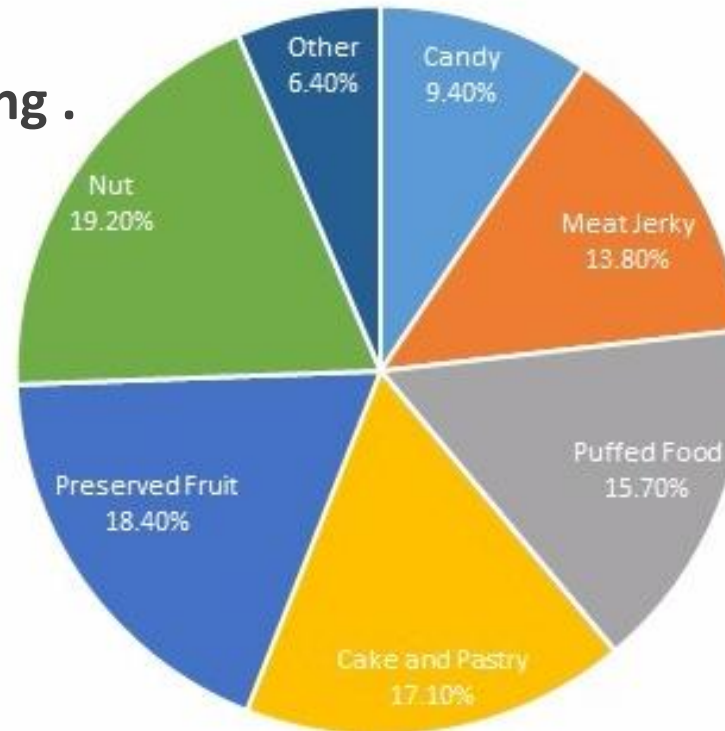
E-Commerce nut purchases are growing rapidly.

Traditional retail market is declining .

New trends in nuts for China

- Less flavored
- Minimal processing
- Kernel market is growing very fast

Sales Percentage of Snacks by Category



	Top 10 snack Brand in 2016	Top 10 E-commerce snack Brand <small>based on sales volume and value on Tmall, Oct1-Dec22,2016</small>
1	Three Squirrels 三只松鼠	Three Squirrels 三只松鼠
2	Be & Cheery 百草味	Be & Cheery 百草味
3	Bestore 良品铺子	Bestore 良品铺子
4	QiaQia 恰恰	Tong Nian Ji 童年记
5	HuaWeiHeng 华味亨	Xin Bian Jie 新边界
6	Aming 阿明	Xin Nong Ge 新农哥
7	Lyfen 来伊份	Silly Funny Bear 憨豆熊
8	Kswfood 口水娃	Lao Jie Kou 老街口
9	Tenwow 天喔	Lou Lan Mi Yu 楼兰蜜语
10	HengKang 恒康	Kou Kou Fu 口口福

E-Commerce Penetration Growing Rapidly

Public data shows that China's nuts business value is **29 billion** in 2017, and will reach **50 billion** in 2020.

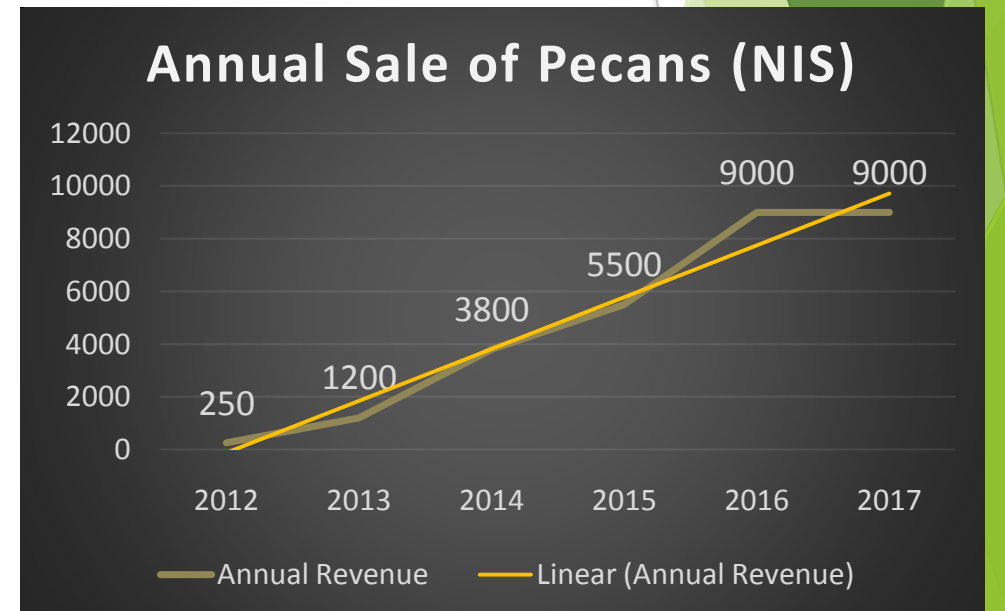
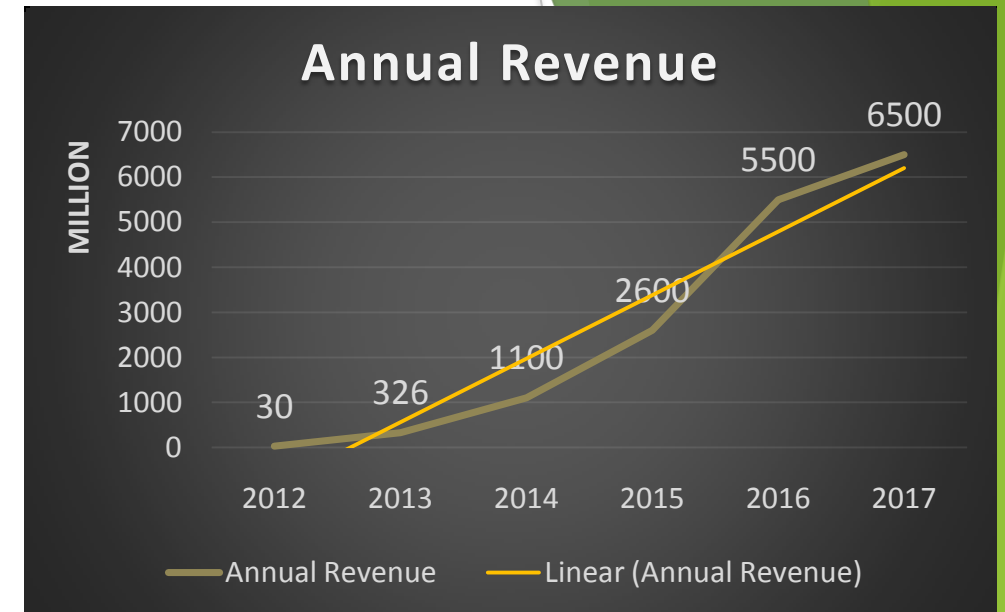
China's consumption of tree nuts increased **17%** from January 2017 to December 2017. However, consumption of Pecans & Macadamias down slightly September through December compared to last year. (Resources: sycm)



Source: China Customs, Hong Kong Census & Statistics Department

Nuts Sales Ranking in 2017 (E-Commerce)

- Went from a single retail to the Largest Online Agri-business in 6 years.
- According to the latest sales report, their sales reached **1.03 Billion** in 2017.





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INSHELL PECAN IMPORTED BY CHINA

U.S. | SOUTH AFRICA | MEXICO



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UNDERSTANDING OUR COMPETITORS

- South Africa, Mexico
- Other Tree Nuts

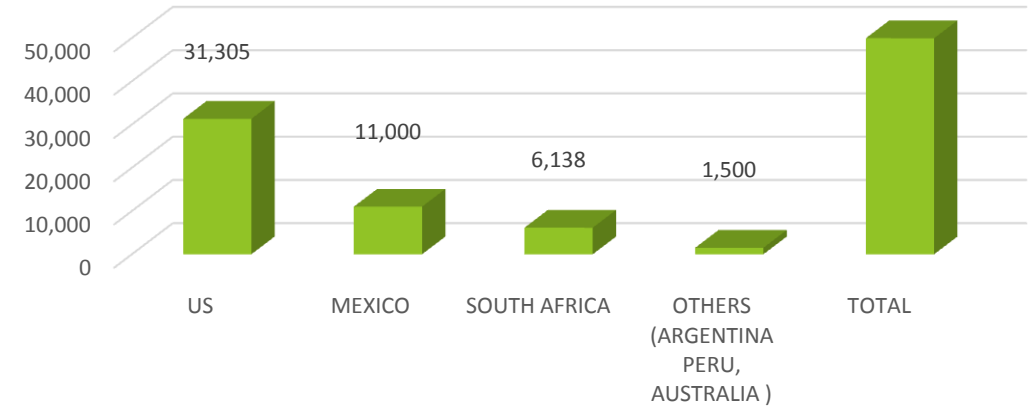


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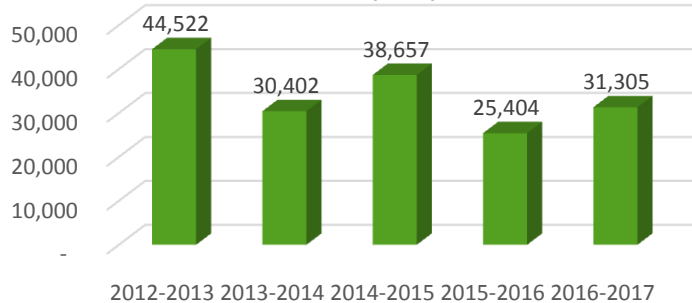
Inshell Pecan exported to China are mainly from the following areas:



2016 WORLD INSHELL PECAN EXPORT TO CHINA (MT) 49,943



U.S. INSHELL PECAN EXPORTS TO CHINA (MT)

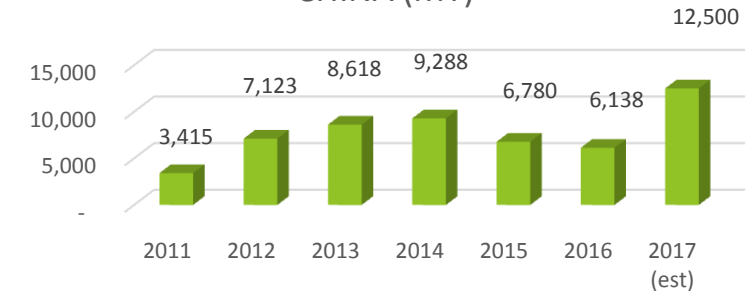


MEXICO INSHELL PECAN EXPORTS TO CHINA (MT)



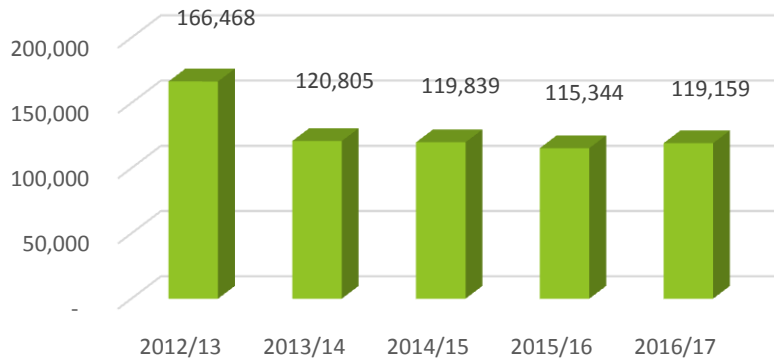
**The export number does not include the quantity that was shipped through US port.

SOUTH AFRICA INSHELL PECAN EXPORTS TO CHINA (MT)

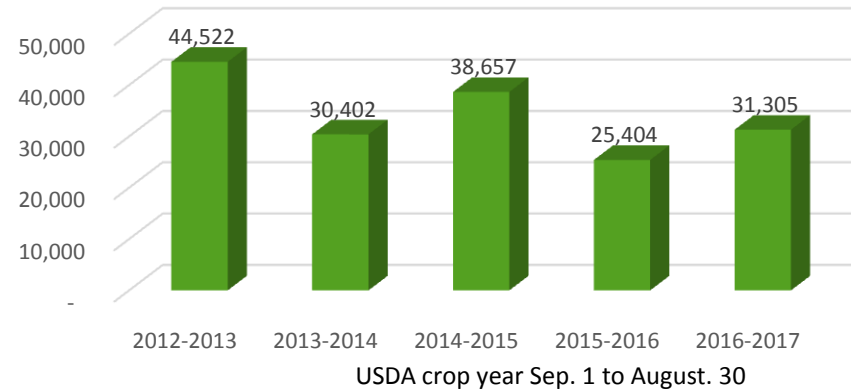


U.S. INSHELL AND PECAN KERNEL EXPORTS TO CHINA (MT)

U.S. PECAN CROP PRODUCTION

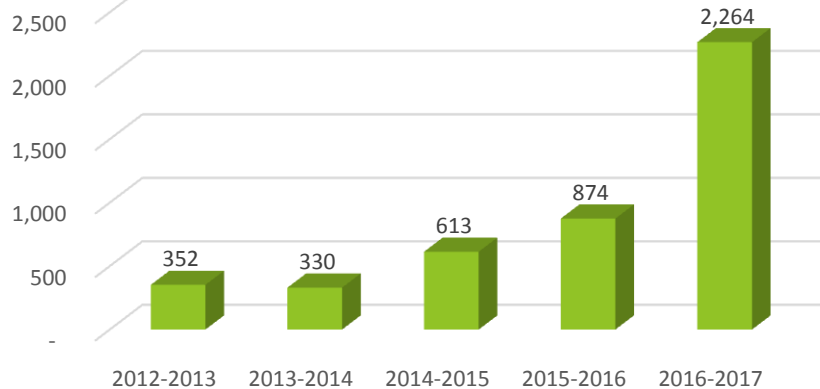


U.S. INSHELL PECAN EXPORTS TO CHINA
(Included: China, Hong Kong, Vietnam)

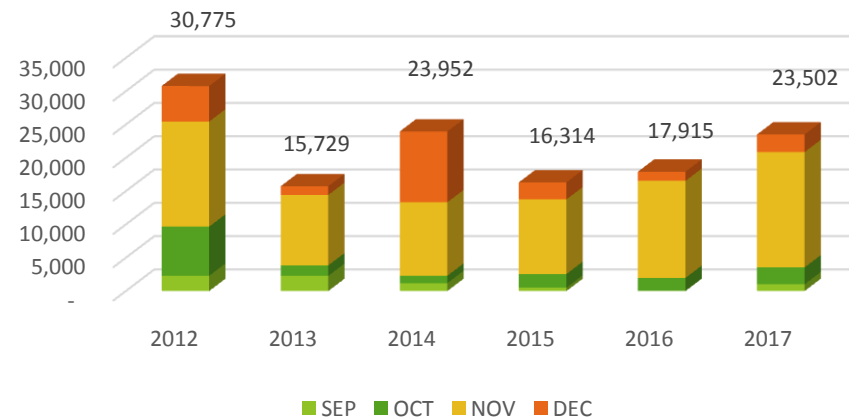


Approximately 26% of the U.S. Pecan production is shipped to China.

PECAN KERNEL EXPORTS TO CHINA
(Included: China, Hong Kong, Vietnam)

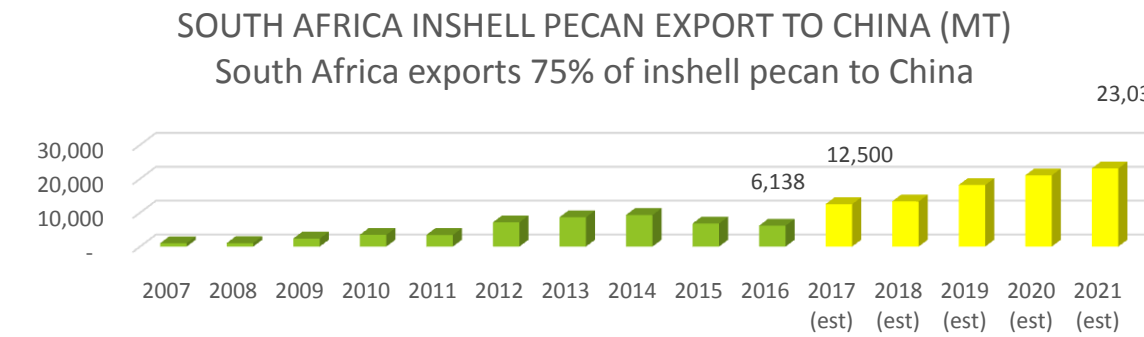
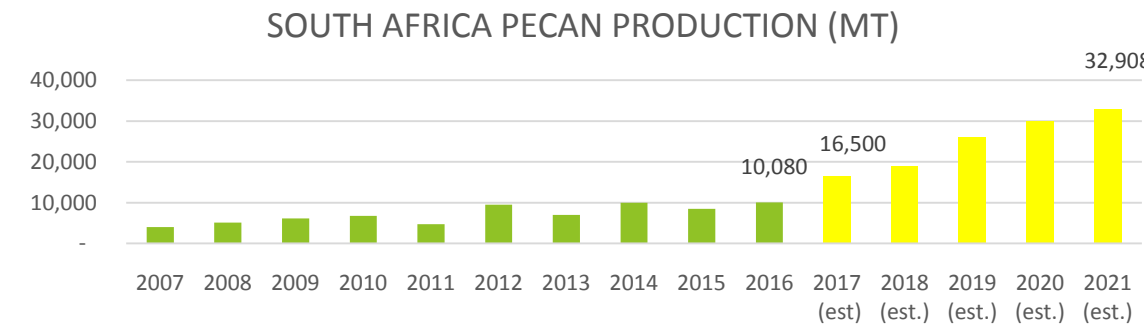
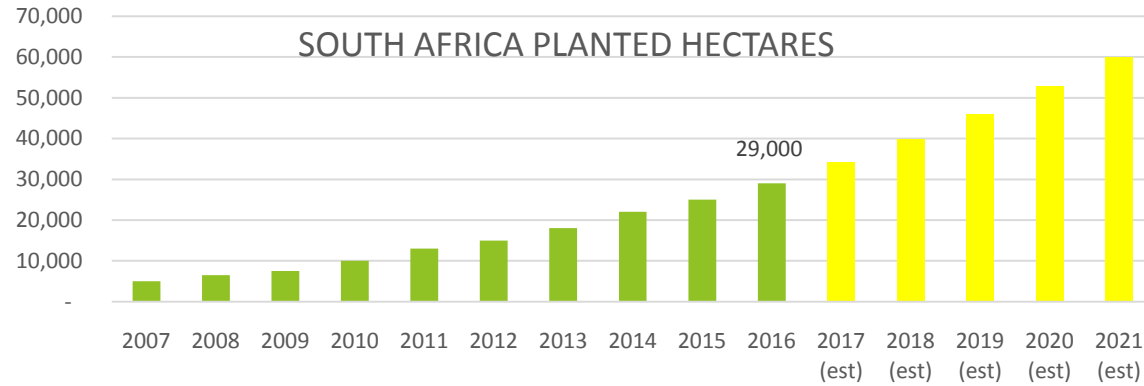


U.S. INSHELL PECAN SHIPMENTS TO CHINA
SEPTEMBER TO DECEMBER (MT)



Approximately 75% of the U.S. Inshell Pecan exported to China is from **Georgia**.

SOUTH AFRICA

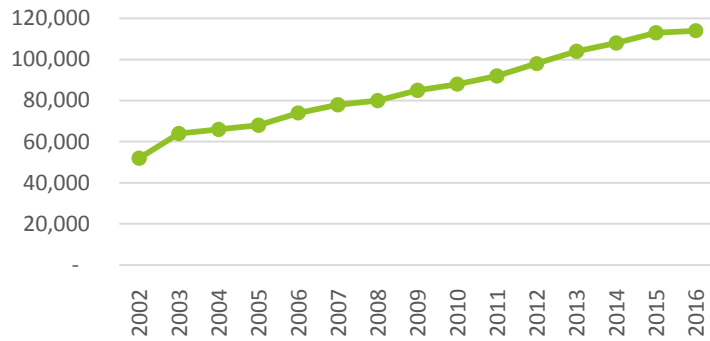


- 70% of South Africa pecan production is in the Northern Cape Province**
- Approximately 29,000 hectares planted (currently)**
- Approximately 28% hectares are currently in production**
- Approximately 75% of inshell pecan nuts are exported to China.**
- Main Cultivars : Wichita, Choctaw, Western, Pawnee.**
- 36% of the crop is 45-55 nuts per pound and 40% is 55-65 nuts per pound**
- South Africa crop harvest time is favorable for marketing to China**

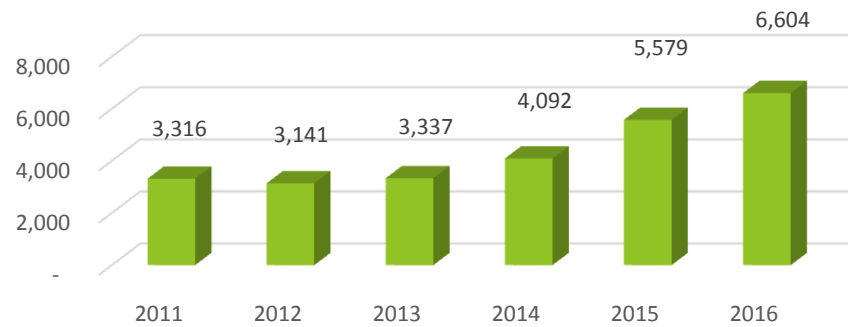
Source: INC, Golden Peanut & Tree Nut, , INC online data, South Africa Pecan Processors Association

MEXICO

MEXICO PLANTED HECTARES

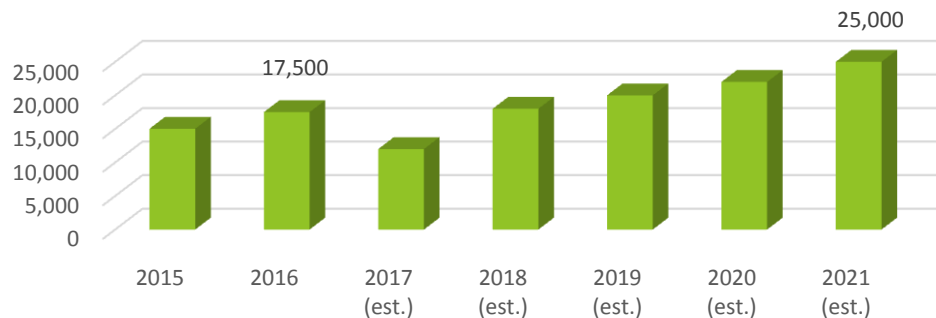


MEXICO INSHELL PECAN EXPORTS TO CHINA (MT)



**The export number does not include the quantity that was shipped through US port.

SONORA, MEXICO PRODUCTION IN (MT)



Estimated 2016 crop production was 142,140 MT in Mexico.

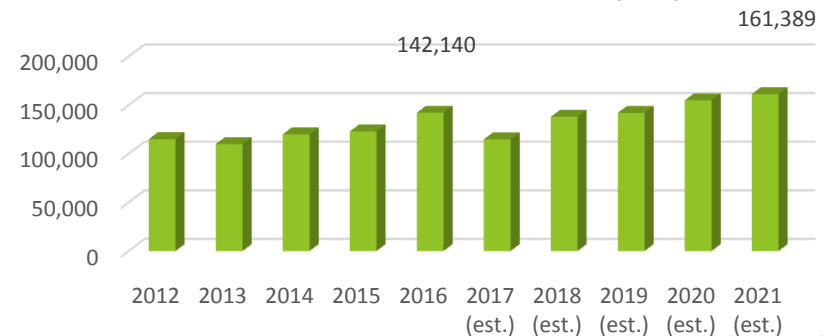
Approximately 11,000 MT was export to China. (In 2016: 6,604 MT was shipped from Mexico ports.)

Approximately 65% of the inshell pecan exported to China is from Sonora.

Sonora main cultivars: Wichita 70% and Western 20%; approximately 60% of crop is 45-55 count per pound.

Sonora harvest in September, right on time for the Chinese New Year.

MEXICO PECAN PRODUCTION (MT)



Source: Agriculture information Service Mexico, SAGARPA COMENUEZ, Productora, SIAP

CHINA IS PLANTING PECAN TREES - FUTURE ESTIMATED PRODUCTION

31,533 Hectares of pecan has been planted in China from 2011 to 2016.

2016 estimated production was 110 MT.

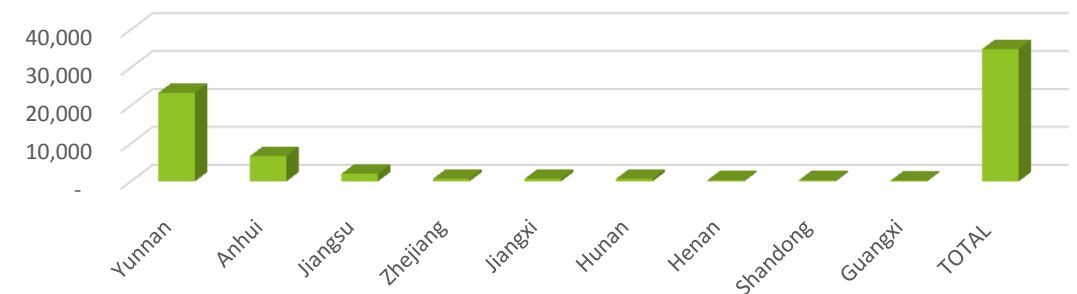
2021 estimated production 39,213 MT.(**)

Main Cultivars: Pawnee, Wichita and Western Schley



Product	2016 Hectare	Production until 2016 (MT)	Growing Area	Source
Pine Nuts 松子	450,000 square kilometers	12,000 (kernel)	Heilongjiang, Jilin, Liaoning, Inner-Mongolia, Yunnan 黑龙江, 吉林, 辽宁, 内蒙古, 云南	CCCFNA, Liaoning Forestry Research Institute
Walnuts核桃	200,000	900,000 (in shell)	21 provinces, capital city autonomous regions 全国21个省, 自治区	CCCFNA
Hazel Nuts 榛子	160,000	40,000 (in shell)	Heilongjiang, Jilin, Liaoning, Xinjiang 黑龙江, 吉林, 辽宁, 新疆	The Fruit and Tree Nut Research Institute of Liaoning Province
Macadamia 夏威夷果	100,000	8,000 (in shell)	Yunnan, Guangxi, Guangdong, Sichuan, Guizhou 云南, 广西, 广东, 四川, 贵州	Yunnan Macadamia Association, Guangxi Fuxu Macadamia Farms
Pecan Nut 碧根果	31,533	110 (in shell)	Yunnan, Anhui, Zhejiang, Jiangsu, Jiangxi, Hunan, Henan 云南, 安徽, 浙江, 江西, 河南, 湖南, 广西, 山东	Liu Guangqin, Researcher and Professor of Jiangsu Academy of Agricultural Sciences
Pistachio 开心果	3,000	30 (in shell)	Xinjiang 新疆	Kashi Regional Forestry Knowledge Promotion Center of Xinjiang
Almond 巴旦木	20,000	50,000 (in shell)	Xinjiang, Shanxi 新疆, 山西	Horticultural College of Xinjiang Agricultural University Horticultural College of Agricultural University of Southern China
Cashew Nut 腰果	700	420 (in shell)	Hainan, Yunnan 海南, 云南	

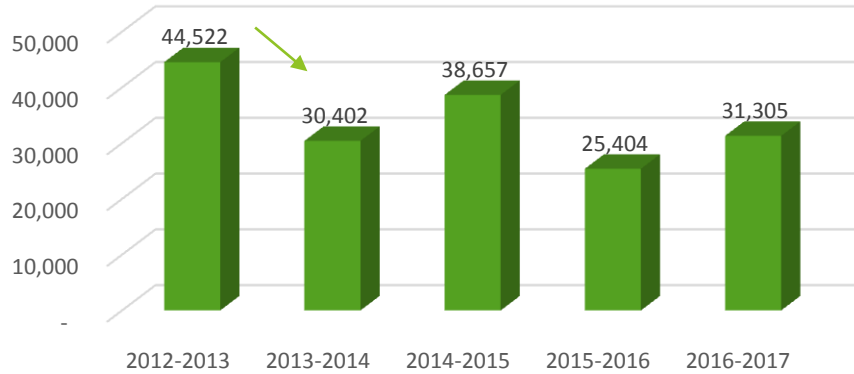
PROVINCES WHERE PECAN HAS BEEN PLANTED AS OF 2016 (HECTARES)



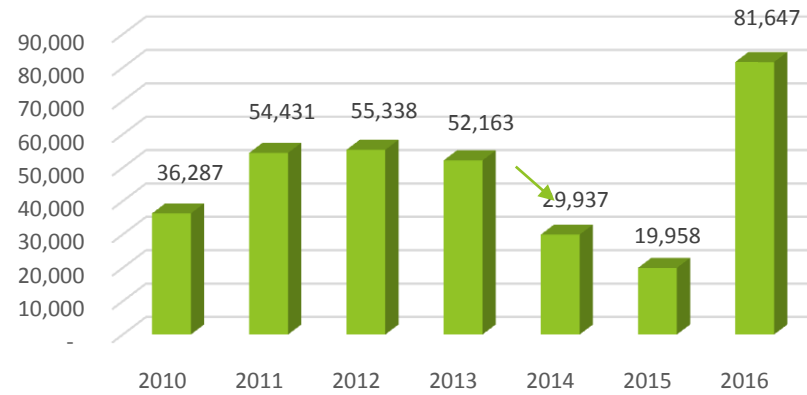
Sources: Liu Guangqin, Jiangsu Academy of Agriculture Sciences, Chinese Academy of Forestry, Research Institute of Subtropical Forestry, Nature's Finest Foods.

US PECAN, ALMOND, WALNUT, PISTACHIO SHIPMENTS TO CHINA (MT)

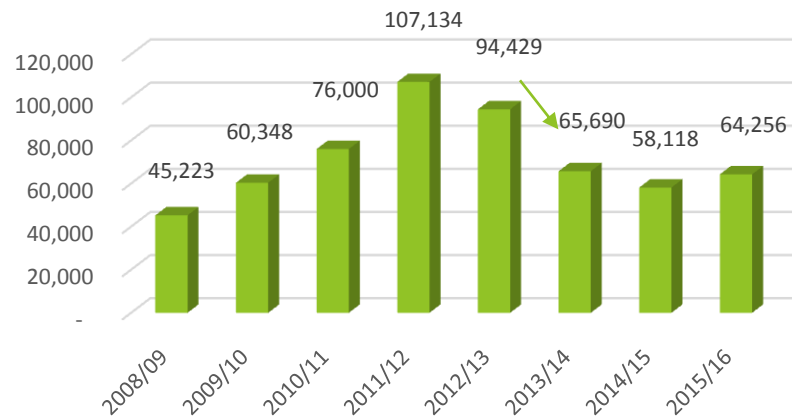
U.S. INSHELL PECAN SHIPMENTS TO CHINA (MT)



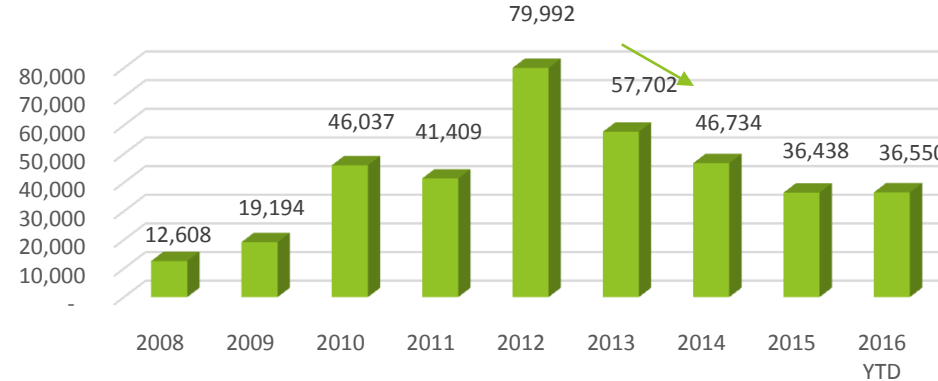
U.S. PISTACHIO SHIPMENTS TO CHINA (MT)



U.S. ALMOND SHIPMENTS TO CHINA (MT)



U.S. INSHELL WALNUT SHIPMENTS TO CHINA (MT)



NOTE: When the price of in-shell pecans becomes too high at the retail level, nut processors and retailers quickly switch their business to lower cost, higher margin nuts.

**IN 2016 CHINA PRODUCTION WAS 900,000 MT OF WALNUT & US PRODUCTION WAS 618,000 MT



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HOW TO KEEP EXPORT & PRICES STRONG



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Harvest date is important for China Market

South Africa

- Harvest in **June - July**
- Ocean transportation to China is 35 days plus 10 to 20 days inland transportation. Timing is very good for Chinese New Year production.

Sonora,
Mexico

- Harvest in **September - October**
- Ocean transportation to China is 30 days plus 10 to 20 days inland transportation. Right on time for Chinese New Year production.

Georgia, USA

- Harvest **October - December**
- Ocean transportation to China is 40 days plus 10 to 20 days inland transportation. Majority of the crop does not make it for Chinese New Year production.



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INSHELL PECAN VARIETIES

GEORGIA USA

- DESIRABLE
- CAPE FEAR
- PAWNEE
- KIOWA
- STUART
- BLENDS
- OTHERS

SONORA MEXICO

- WICHITA (70%)
- WESTERN (20%)
- OTHERS (10%)

SOUTH AFRICA

- WICHITA (37%)
- CHOCTAW (17%)
- BLENDS (21%)
- UKALINGA (8%)
- WESTERN (5%)
- PAWNEE (4%)
- OTHERS (8%)

THESE AREAS PRODUCE PECANS 45-55 NUT PER POUND



GROWER CLEANING PLANTS IN SONORA, MEXICO

Sonora, Mexico inshell pecans going to China are processed in a cleaning plant that dries, cleans, sizes & packages in 25 kg bags.



PACKAGING OF INSHELL PECAN TO CHINA

Most U.S. Inshell Pecans are shipped in different size of Super Sacks.

All Inshell Pecans from Sonora, Mexico and South Africa are shipped in **25 kg bags**





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Preferred Packaging for China Exports

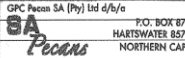
- **50 lb. sacks** (shrink wrapped and palletized) are always the 1st choice of packaging for China Exports.
- **Closed Top Super Sacks** in the following sizes are the 2nd choice: 42"x42"x50" Tall (double stacked) or 38"x36"x84" Tall (20 SS per container). Preferably vented w/Baffles
- **What doesn't work?**
Open Top Super Sacks in odd sizes which do not fit export containers!
= ***Spilled Nuts, Product Degradation, Lower Tonnage per Container, Negative Image.***
- **Industry Packaging Consistency is a must.**
This will increase efficiency for both growers, handlers, and exporters, (*i.e. lower cost and maximize tonnage per load*) as well as create a positive image for a premium nut. Pecans are expensive!



CHINA IS MORE
AND MORE
DEMANDING
ON THE
QUALITY...as
more tonnage
becomes
available world
wide

- ▶ Size of the Nuts
- ▶ Uniformity
- ▶ Maximum Full Kernel for Variety
- ▶ Same Shape Nuts in the lot; less willing to accept Blends with Long nuts mixed with Round nuts.
- ▶ Less than 2% defectives (based on nut count) of Inedible Kernel, less than Full Kernel, Cracks, Sprouts, etc.


BRC5-01-6 PALLET GRADING CERTIFICATE

SIZE	JBH80	 GPC Pecans SA (Pty) Ltd d/b/a P.O. BOX 872 HARTSWATER 8570 NORTHERN CAPE N18 HIGHWAY HARTSWATER, SOUTH AFRICA TEL: +27 53 474 0031/35 • FAX: +27 53 474 1374 REG. NO: 2012/014524/07 • VAT: 474 026 5055
TOTAL 25KG BAGS	102	
STACK NUMBER	SAP/PEC/INS/DUN/77/15	
CONTRACT NUMBER	SAP20150P	

PALLET NUMBER	COUNT/KG	COUNT/LBS	SKR	MOISTURE	RESULTS
1	96	44	60.1	4	Pass
2	99	45	59.6	4	Pass
3	97	44	59.8	4	Pass
4	100	45	58.7	4	Pass
5	101	46	58.5	4	Pass
6	98	45	59.2	4	Pass
7	97	44	59.6	4	Pass
8	99	45	59.4	4	Pass
9	96	44	60.3	4	Pass
10	97	44	59.9	4	Pass
11	98	45	59.6	4	Pass
12	100	45	58.8	4	Pass
13	99	45	58.9	4	Pass
14	97	44	59.2	4	Pass
15	96	44	60.4	4	Pass
16	98	45	59.5	4	Pass
17	96	44	59.9	4	Pass
18	97	44	59.5	4	Pass
19	99	45	59.2	4	Pass
20	98	45	59.4	4	Pass
AVERAGE	98	45	59.5	4	Pass

Each pallet represents 50 x 25kg polypropylene bags. Each sample represents 60 bags.

Checked by: Johan Scheepers

 HAND TEST REPORT

Date: 27/SEP/2017
 Lot/Contract Number: XL-0-07
 Grower/Handler: El Comba - VDU Swirps
 Variety: 61 En-100 XL
 Weigh of Lot (Pound): 2539.8
 Average Percent Kernel: 61.1%
 Average Nuts per LBS: 46-53 47.1 lb 103.8 #2/100
 Moisture: 2.7

Nut Count #1	Test	Nut Count #9	Nut Count #10
47 48 46			
46 48 53			
52 48 46			
51 48 46			
49 48 47			
46 48 47			
46 52 47			
Nut Count #8			

Nut Size	Count
13/16	
14/16	
15/16	
16/16	
Total	

Variety	Count
Total	

Embryo	Wafers	Insct Dam	Mold	Total Edibles

Edibles
Inedibles
TOTAL EDIBLES:
REJECTED:

NOTES
(1) 299 31# 2.7 61.8%
(2) 299 32# 2.9 61.8%
(3) 300 32# 2.6 59.9%

Inspector: Alonso Muroz

COMPETITORS MODEL



U.S. MODEL



Conclusion - Suggestions to Growers

Expect rapidly increasing competition from lower cost producers: South Africa, Mexico and South America. Although pecan export numbers going to China look good: overall exports have not increased significantly and are basically flat over the last 5 year period. Growers in these countries have the margin to lower their prices to move all of their crop into China when needed and still remain profitable.

There will be a lot of additional tonnage of quality pecans available in the near future.

- High quality large nuts that have been sized for uniformity will always demand a good price in the market
- Improved packaging , preferably 50 pound sacks or at the least Closed Top Super Sacks, for export.
- Quality sales in China (less than 2% defectives based on nut count of inedible kernel, less than full kernel, cracks, sprouts, etc.)
- Contract 40% to 50% of your estimated export volume in July-August. Why? Remember 2017 price drop during the peak harvest period. There was too much tonnage available in the market for sale at one time. Simply stated, the China market cannot absorb this amount of product in a short period of time. The volatility in the market will get worse as more tonnage becomes available.
 - Contracting will help to increase the export volume and keep prices high.
 - Allow Chinese processors to pre-sale and market inshell pecan to their customers.
 - Give China an option to consider U.S. pecans when South Africa and Mexico are offering their crop.

(South Africa normally starts offering some in March, about 2-3 months before harvest. Sonora, Mexico normally starts contracting in July-August, 2 months before harvest).

Thank You!

(Questions are welcomed)



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