

Unlike the almond, walnut and pistachio industries where 60 to 70 percent of their production is exported, until 2007, pecans were primarily consumed in North America. Supplies were sufficient to supply the North American market and a limited amount of export. Growers had little choice as to where they could sell their production and the shellers had no incentive to offer anything more than the bare minimum for the crop. However, a short 2007 walnut crop, resulting in record walnut prices, and the second largest pecan crop in history, changed that. Chinese traders quickly learned that they could cut out the middle man (the sheller) and go directly to the grower to purchase their pecans. The pecan industry had been changed forever.

No one can dispute the impact China has had on the pecan market. However, recent events should sound a call to everyone that the time has come for the pecan industry to take a very close look at where it goes from here. From 2005 through the summer of 2011, prices paid to the grower increased dramatically. By July 2011, growers who still had good quality low count high yield nuts were receiving prices that were almost twice what they had received for similar product only five years earlier. Over the same period, retail prices for pecan meats increased more than 125 percent. Total U.S. pecan exports increased dramatically with exports to China accounting for almost 30 percent of the U.S. crop. Inshell prices, as well as wholesale and retail meat prices, reached levels never before experienced causing total consumption to drop 10 percent and domestic U.S. consumption to drop almost 20 percent. Unfortunately, the rapid increase in exports was fueled at the expense of the industry's core domestic business.

Then everything changed. In just 18 months, from July 2011 through January 2013, prices for both inshell pecans and meats dropped an average of 50 percent. While much of the responsibility for the current market conditions can be traced to high prices, there were a number of other contributing factors. While not an all-inclusive list, the following 6 factors played a significant role in the market's decline:

1. Price
2. Weather
3. South African pecan production
4. China
5. The price of competing nuts
6. Timing

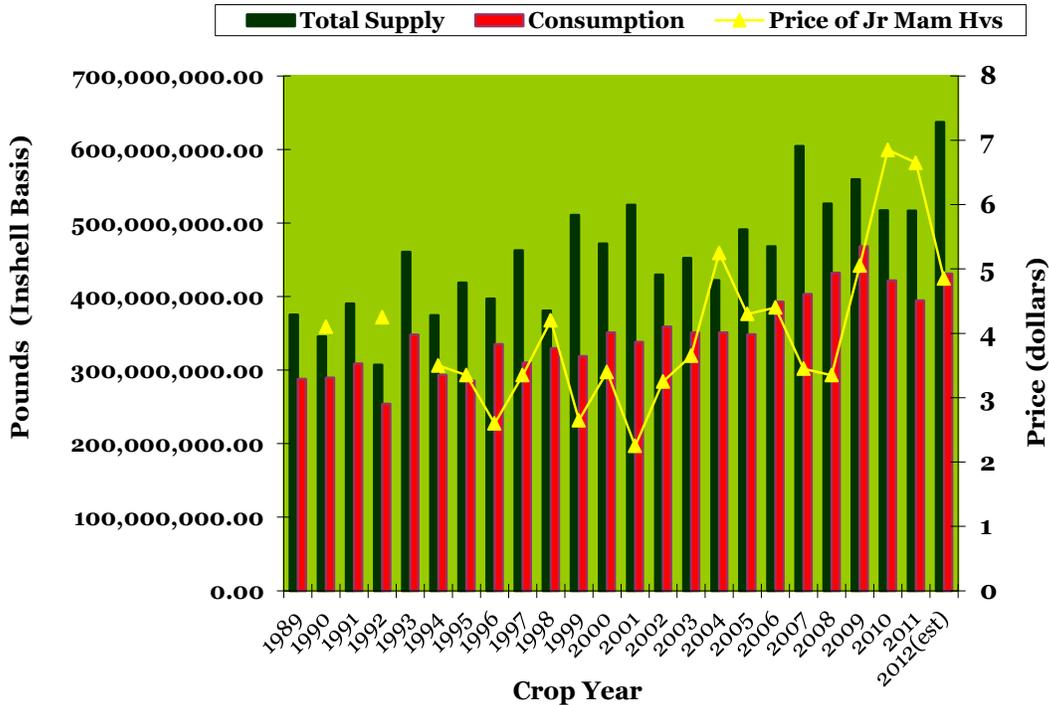
### **Price**

Without a doubt, the greatest contributing factor to the current market malaise was price. While a number of the above factors helped to facilitate the market's price decline, it was the increase in the price of inshell between October 2007 and July 2011 that led to the decrease in consumption and the eventual withdrawal of China from the inshell market. In August 2011, there were no shipments of inshell to China, Hong Kong or Vietnam and only 43,430 pounds of inshell shipped in September. It wasn't until the end of October that the Chinese re-entered the market. Even then, inshell shipments totaled less than three million pounds

Unlike consumer-driven western economies, the Chinese market is trader driven. As long as the traders can make money, they will continue to buy. Even though supplies remained relatively stable, Chinese traders continued to move prices higher on large, high-yielding inshell. By July 2011, inshell grower prices had risen to an average of \$6.25 per point (well over \$3 per pound). Pecan shellers already faced with a lack of sufficient large inshell to make Junior Mammoth and Mammoth halves, were forced to meet the higher prices to be able to cover their contract

obligations. The higher inshell prices meant that the shelled meats now had to be sold for \$7.50 to \$8.00 per pound for Fancy Jr. Mammoth halves and \$7.00 to \$7.50 per pound for Fancy Medium pieces. Unfortunately, the actual meat market was considerably lower. Pecans had become the most expensive nut option for both the consumer and the large ingredient buyer. Both pulled back and switched to lower-priced alternatives.

## Total Supply/Consumption vs Price



Note: Prices reflect the average price of Fancy Jr. Mammoth halves in January following the harvest.

While Chinese purchases during the fall of 2011 temporarily slowed the decline, by January 2012, shellers were having a hard time writing contracts. Major domestic and European meat customers continued to curtail their purchases and continued their switch to cheaper alternatives. In many cases, pecans were removed from their product lines altogether. The average wholesale price of Jr. Mammoth pecan halves dropped to \$6.65/pound. Fancy Medium Pieces fell to an average price of \$6.30/pound. Dealing with high-priced inventory, and unable to lower prices without sustaining financial losses, the shelling industry could not reverse the downward spiral. By January 2013, wholesale prices on halves had dropped almost 40 percent while the price of pieces plummeted almost 60 percent; the lowest prices in almost 5 years. By some estimates, the shelling industry had lost approximately \$100 million in less than 12 months.

### Weather

At no time in recent industry history has weather played a more significant role than it did in 2011. While there are always areas within the pecan belt that experience some weather-related problems (late freezes, unusual snowfalls, hurricanes, heavy rains, etc.), severe drought conditions throughout the pecan belt in 2011 and 2012 adversely impacted production, nut yield and ultimately meat prices. Nowhere was this impact felt more than in the Southwest. For 11 months, Texas and its neighboring states received no rain. However, unlike many of the other factors that helped to create the collapse of the pecan market, it wasn't until months after the

harvest had been completed, and the meat contracts written, that the shelling industry felt the drought's impact.

To understand the impact on price, it is important to understand the shelling process. For years the pecan industry thrived on selling large halves, particularly Mammoth and Jr. Mammoth. Shelling innovations continued to focus on the larger nuts as these were the preferred items in both the domestic and overseas shelled meat markets. When the Chinese stepped into the market, they preferred to buy only the largest and highest-yielding inshell varieties, the same varieties that yielded Mammoth and Jr. Mammoth halves. Continued innovations in shelling equipment allowed shellers to optimize shell-out yields of halves with many obtaining yields of 75 to 80 percent. Unlike the old Champion or Meyer crackers that produced a lot of pieces, the newer cracking machines did not. As such, the price differential between halves and pieces remained relatively constant. Because the new crackers did not produce a lot of pieces, the shellers could get a higher price for the pieces they did produce. Generally speaking, the price differential was usually \$.10 to \$.20/pound for fancy product.

During the drought, growers and shellers alike were concerned that the severe lack of water would cause a significant drop in production per acre. However, as the growing season progressed, the trees appeared to be weathering the drought fairly well. While meat yields were down, overall production did not appear to be as adversely impacted as many had speculated. However, once the shellers began to process the product, they noticed a significant decline in the percentage of halves being produced. As stated earlier, normal half yields were generally in the 75 to 80 percent range for good quality improved variety nuts. Due to the dryness of the nuts, half yields plummeted to 45 to 55 percent. In order to cover their meat contracts, the shellers had to shell almost twice as much inshell to generate the same number of halves. In the process, they were now generating considerably more pieces. With no additional demand, as the industry's piece inventory increased, piece prices plummeted. At one point, the differential between halves and pieces grew to over \$2/pound. With no way to increase the prices on halves to offset the losses being experienced on the pieces, all the shellers could do was to try and move the pieces as soon as possible at whatever price they could get.

### **South African Pecan Production**

Over the past 10 years, pecan production in South Africa has increased dramatically. By some estimates, South Africa could be producing upwards of 80 million pounds of pecans by 2020. Being grown in the Southern hemisphere, the timing of the harvest makes the purchase of South African product ideal when it comes to supplying product for the Chinese autumn festivals.

In the late winter and early spring of 2011, South African growers were projecting a harvest of approximately 18 to 20 million pounds. With U.S. pecan prices continuing to climb, and available supplies of good-quality high-yielding nuts limited, many Chinese traders saw an opportunity in the South African crop. South African growers, eager to sell at historic levels, began to pre-sell their production. By some estimates, by the time the harvest was to begin, 85 to 90 percent of the projected crop had been contracted. However, when adverse weather conditions during the harvest reduced the crop by almost 50 percent, both Chinese traders, needing to cover inshell requirements for China's Moon Festival, and South African growers, needing to satisfy contract obligations, were forced to re-enter a very tight U.S. inshell market.

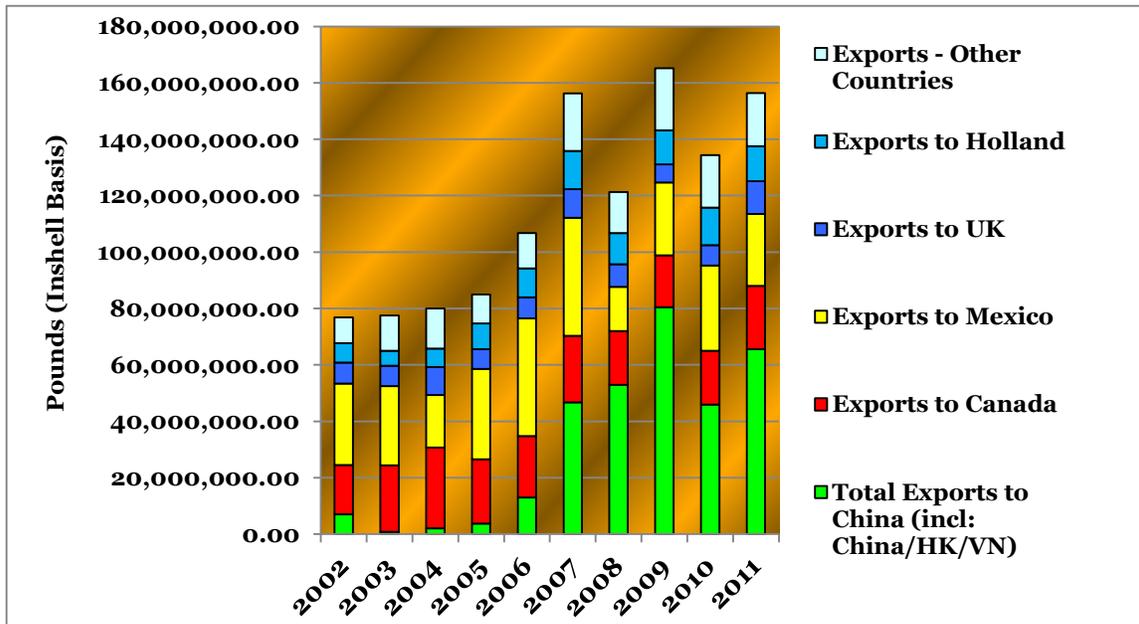
Believing recently released Foreign Agricultural Statistics (FAS) data, data that showed that even with record prices imports were continuing to increase, U.S. growers continued to move the inshell market higher. At the time, the renewed interest by the Chinese and South Africans mistakenly served to confirm the FAS figures. Unfortunately, it would not be until September that the industry would learn that all of the 2011 FAS crop year data was wrong. Not only did the data incorrectly reflect a significant increase in exports, it hid the fact that worldwide consumption had already fallen over 10 percent. U.S. consumption eventually dropped off almost 20 percent. A

thorough examination of the FAS data revealed an average error of 85 percent. In some cases, shipments were overstated by as much as 120 percent.

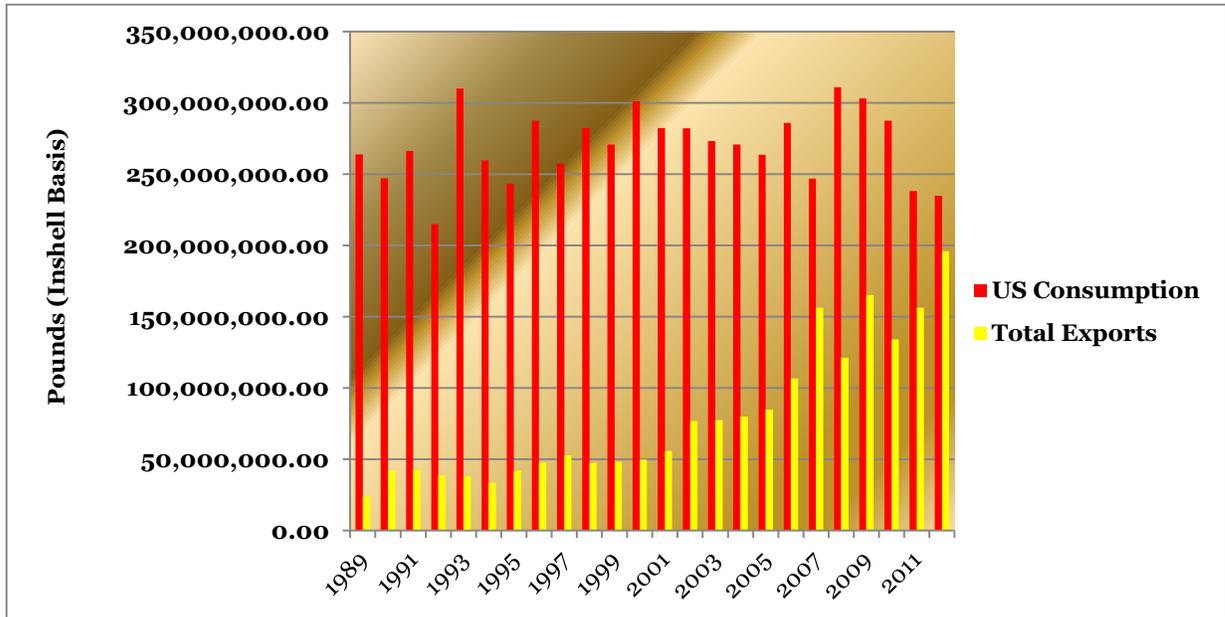
By May of 2012 Chinese traders were again ready to enter the South African market. South African growers were forecasting a record crop: approximately 22 million pounds. Hoping to take advantage of the lower market, and fearing that the 2012 U.S. crop could be an off-year crop, China purchased 80 percent or more of the crop. Unlike the 2011 crop, the 2012 crop came in as forecast. Added to what they had already purchased out of the 2011 U.S. pecan crop, there was no need to press the early U.S. market. China had enough inventory to handle their fall festivals.

### China

Ten years ago China accounted for less than one percent of all U.S. pecan purchases. Today China purchases almost one-third of the U.S. pecan crop and accounts for almost half of all U.S. pecan exports.



Unlike other overseas buyers, China is the only major buyer of inshell pecans and accounts for over 87 percent of inshell purchases worldwide. Further, they are almost exclusively an inshell buyer. Shelled meats account for less than 3 percent of their total annual purchases. Unfortunately, the Chinese prefer to purchase only the biggest, highest yielding improved varieties. As such, since 2007, this purchasing preference has led to a severe shortage of Mammoth, Jr. Mammoth and Jumbo pecan halves — halves preferred by the vast majority of retail, gift pack and ingredient buyers. Further, due to limited supplies of pecans, all of the increase in export sales has come at the expense of the industry's core domestic market.



By January 2011, it had become obvious to most of the shellers that the higher prices were taking a toll on the consumption of shelled meats. Both retailers and ingredient buyers were beginning to shy away from long-term contracts, and in some cases, were switching to cheaper nut alternatives. Pecans had become the highest priced nut in the market. It was at this point that the Chinese traders began to scale back their inshell purchases. Had it not been for the adverse weather during the South African harvest and the resultant loss of 50 percent of the crop, China might have pulled out of the market much sooner. However, with no other source of supply, they continued to purchase until late July. When the average price of large, high-yielding improved varieties reached \$3.25/pound, Chinese traders could not envision a profitable outcome and pulled out of the market. In doing so, with many of the domestic shelled-meat buyers out of the market, there was no longer any place for the growers to go with their excess inventory. The core domestic market had been severely damaged thereby sacrificing any long-term market gains and the market stability that might have accompanied them.

There is one other peculiarity about a trader-driven market. In consumer-driven markets, large buyers attempt to negotiate the cheapest price possible. Buyers at Wal-Mart, Costco, Kroger, Planters, etc., pull together quotes from their largest, most reliable suppliers, and then using the cheapest price quoted, attempt to force their preferred suppliers to either meet, or in many cases, beat the cheapest price.

China, on the other hand, does not act like a typical large customer. Instead, they rely on thousands of traders who bid against each other to supply their little piece of the Chinese economy. This results in an auction atmosphere with the product going to the highest bidder. Unfortunately, this can lead to market conditions that are not sustainable. In July 2011, inshell pecans were selling at an equivalent wholesale meat price of \$8.00/pound. Unfortunately, the actual meat market at the time was considerably lower and had been declining for months.

### The Price of Competing Nuts

While pecans compete indirectly with almonds, pistachios, cashews and macadamias in a number of areas, no nut has more of an impact on pecan sales than that of the walnut. This is especially true in the baking and confectionary industries as well as in China.

From a historical standpoint, and with only two exceptions since 1979 (2007 and 2013), pecans have traditionally been priced higher than walnuts. While price certainly impacts sales, due to their flavor, versatility and perceived value, when shelled pecan meats are priced within \$0.75/pound to \$1.00/pound of walnuts at the wholesale level, ingredient buyers prefer pecans. Further, because you cannot make pecan pie, butter pecan ice cream or pecan turtles with any other nut, pecans have a built-in core consumption unlike that of any other nut.

As the shelling industry had observed during the January 2011 contracting season, higher pecan prices were already forcing buyers to either curtail or eliminate pecans from their products altogether. Prices had climbed so high, and so fast, that one major Texas ice cream manufacturer even discontinued making butter pecan ice cream, this in a state where the pecan tree is the state tree. By July, pecans were costing almost twice as much as walnuts and almost three times as much as almonds. Even black walnuts, which had never been cheaper than pecans, were now priced almost \$2.00/pound below pecans. The price differential was so great that the black walnut industry produced promotional literature touting their cost advantage.

### **Timing**

In the business world there is an oft-used phrase, *'Timing is everything.'* Alone, any one of the above factors would have created problems for the industry. Together, they synergistically combined to form an almost *'perfect storm.'*

Tying all of the aforementioned factors together, the following sequence of events summarizes their impact on the overall market:

1. January 2011, contracts for shelled pecan meats reach record price levels. Many buyers either cut back dramatically on the amount of contracted product or decide not to book at all.
2. Chinese traders continue to slowly pull out of the U.S. inshell market hoping to purchase less expensive South African product on what is expected to be a record crop.
3. April/May 2011, severe weather during the South African harvest reduces the crop by almost 50 percent. Both buyers and sellers are forced to re-enter an already tight U.S. inshell market in an effort to cover contract commitments.
4. Texas and neighboring states are in the middle of one of the worst droughts since the great depression. It will be almost 11 months before any rain falls in Texas.
5. Published FAS export data shows a dramatic up-tick in exports even with record prices leading many growers to believe that the market will continue to absorb higher inshell prices. By September it is revealed that all of the 2011 FAS import and export data is wrong, overstating both imports and exports by an average 85 percent.
6. July 2011, pecan prices peak. With shelled meat prices twice as much as walnuts, inshell is now trading at a shelled meat equivalent of almost \$8.00/pound.
7. October 2011, the U.S. pecan harvest is at least two weeks late. Combined with an early Chinese New Year, Chinese traders are forced to squeeze all of their purchases into a narrow window temporarily slowing the market's decline.
8. January 2012, shelled pecan meats are contracted at the second highest level ever thereby forcing many buyers to cut pecan purchases even further. The move by ingredient users to drop pecans altogether increases.
9. January through October 2012, due to the impact of the drought, shellers are forced to shell almost twice as many pecans to yield the same number of halves. This results in the generation of almost twice as many pieces. With no customer base to absorb them, piece prices tumble.
10. April/May 2012, South Africa projects a record crop of 22 million pounds, the bulk of which is immediately sold, and delivered, to China.

11. September 2012, U.S. shellers are forced to write down their inventory; most of it in hard-to-sell pieces. Losses range from a low of \$70 million to a high of \$120 million, money that would have been used to finance 2012 inshell purchases.
12. October 2012, the harvest starts very early, both in the U.S. and Mexico. Combined with the late Chinese New Year, as well as the increased amount of product purchased from South Africa, Chinese traders have no need to press the inshell market.
13. January 2013, the market hits a 4-year low. For the second time since 1979, pecans are priced below walnuts.

### **In Conclusion**

There is an old adage that states, *'Those who fail to learn from history are destined to repeat it.'* Unlike the almond and walnut industries that operate under a federal marketing order, the pecan industry has no strong central organization to give it direction, to develop long-term marketing strategies, to finance research and development, to identify and develop new markets or to promote increased production.

With the exception of a few dedicated individuals, there is no concerted effort within the pecan industry to address the problems currently facing it. Until the industry can come together with one unified voice and realize that short-term profits do not necessarily lead to long-term market gains, the U.S. pecan industry will continue to make the same mistakes time and time again. The time has come for our industry leaders to demonstrate some leadership. As General Eric Shinseki, Chief of Staff, U.S. Army once noted, 'If you don't like change, you're going to like irrelevance even less.' Industry leadership focused on long-term growth, promoting policies and initiatives that strive for stable prices and consistent supply; is that too much to ask?