



# CASHEWS

highlights of the cashew industry

presented by Red River Foods, Inc.

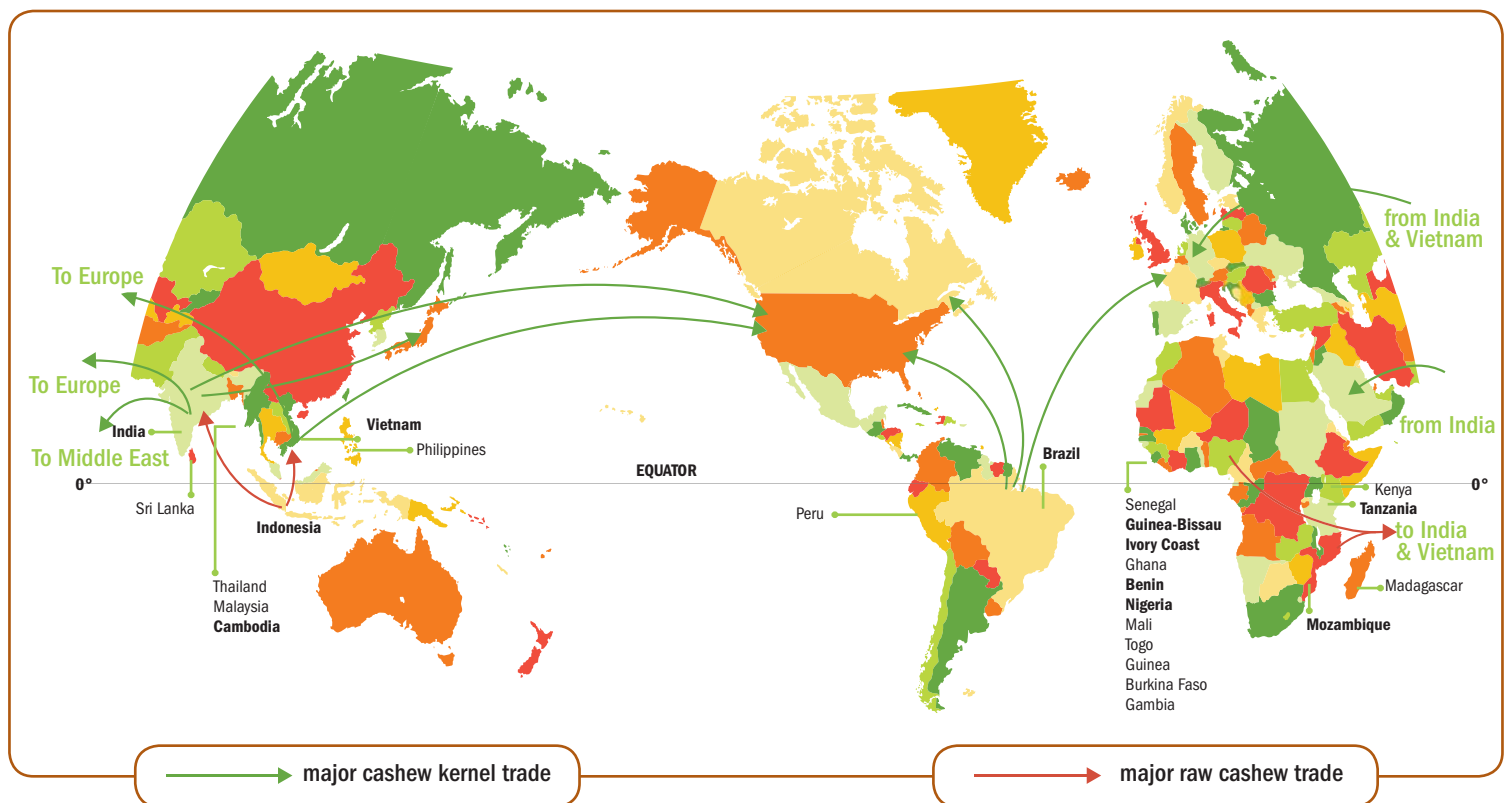
JUNE 2010



# A WORLD VIEW

The cashew tree is native to northeastern Brazil. In the mid-to-late 1500s, Portuguese traders and explorers introduced the cashew tree to India and to the east coast of Africa in an area that is now Mozambique. In Africa, the tree was spread along the east coast (today, Kenya and Tanzania) and was later introduced to the continent's west coast, where it presently grows from Senegal to Nigeria. Portuguese and Spanish traders also introduced the cashew tree to Southeast Asia. The cashew tree now grows in tropical climates of about thirty countries across the globe within a band approximately 25-30 degrees north and south latitude of the equator. India is the largest single producer of cashew nuts while West Africa--principally Ivory Coast, Benin, and Guinea-Bissau--is the largest regional producer. Vietnam, Brazil, and East Africa are other major sources of production. Indonesia has become a major producer and exporter of raw cashews in Southeast Asia.

The world map below identifies countries with estimated annual raw cashew production of one or more million kgs in 2010. Countries identified in bold type are major producers and the most important exporters of raw cashews and/or processed cashew kernels. The cashew kernel trade and the raw cashew trade are highlighted, showing the major kernel export destinations from India, Vietnam, and Brazil and the sources of Indian and Vietnamese raw cashew imports.



## Adapted Aphorisms for Anacardium Advocates



- What happens in one origin doesn't necessarily stay in that origin.
- Whatever can go wrong in a volatile cashew market...will go wrong.
- A cashew in the hand is worth two on the tree.
- Know not only the price of the cashew but also its value.
- "Luck" in the cashew market = supplier preparation + buyer opportunity.
- The whole is not greater than the sum of its parts...it's just two splits, naturally joined.
- Practicing purchasing from premium processors makes perfect sense.

## THE IMPORTANCE OF QUALITY

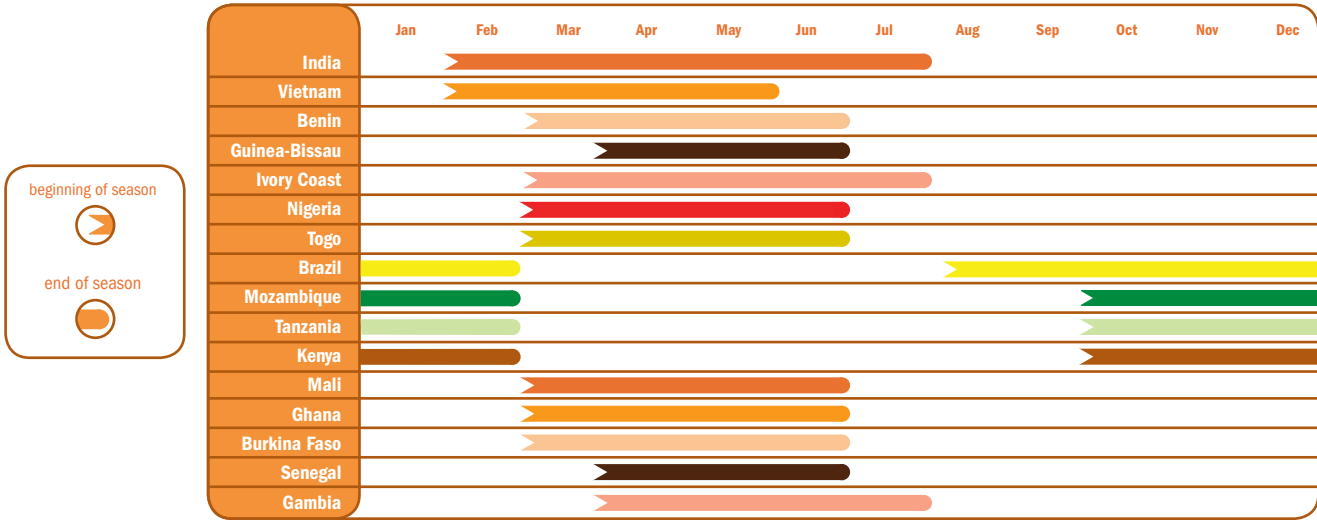
The matter of product quality has long been an issue, but its importance has been magnified in recent years because of the focus on food safety. In part, the product quality issue has been the consequence of steadily increasing demand, which has drawn many more players into the industry in two of the three major origins, Vietnam and India. Manufacturers and end-users want to ensure their suppliers are buying the better qualities. Yet there is not a comparable concern among some suppliers / processors at origin. In Vietnam there are a number of new entrants whose processing operations are far below acceptable standards. In addition, local traders gather and export product from various packing centers. The usual result is poor and inconsistent quality from these operations. In India most processors are linked directly to a main processing company much as “subsidiaries” of a company. While the product from the main processing facility may meet export quality standards, that from the smaller, linked operations can be below standard. In Vietnam and in India, only a relatively few processors have attained ISO (International Organization for Standardization), GMP (Good Manufacturing Practice), and HACCP (Hazard Analysis Critical Control Point) certifications. Those processors, operators, and traders who do offer the better quality products will be the ones who attract the more reliable and reputable buyers.

The final product: Roasted/Salted Cashew Nuts



# HARVESTING SEASONS

Harvesting seasons are generally similar in the producing countries, depending on their location relative to the equator. Countries north of the equator, including India, Vietnam, and producers in West Africa, harvest from early in the calendar year to approximately mid-year. Countries south of the equator, including Brazil and producers in East Africa, harvest from September or October to early in the following calendar year.

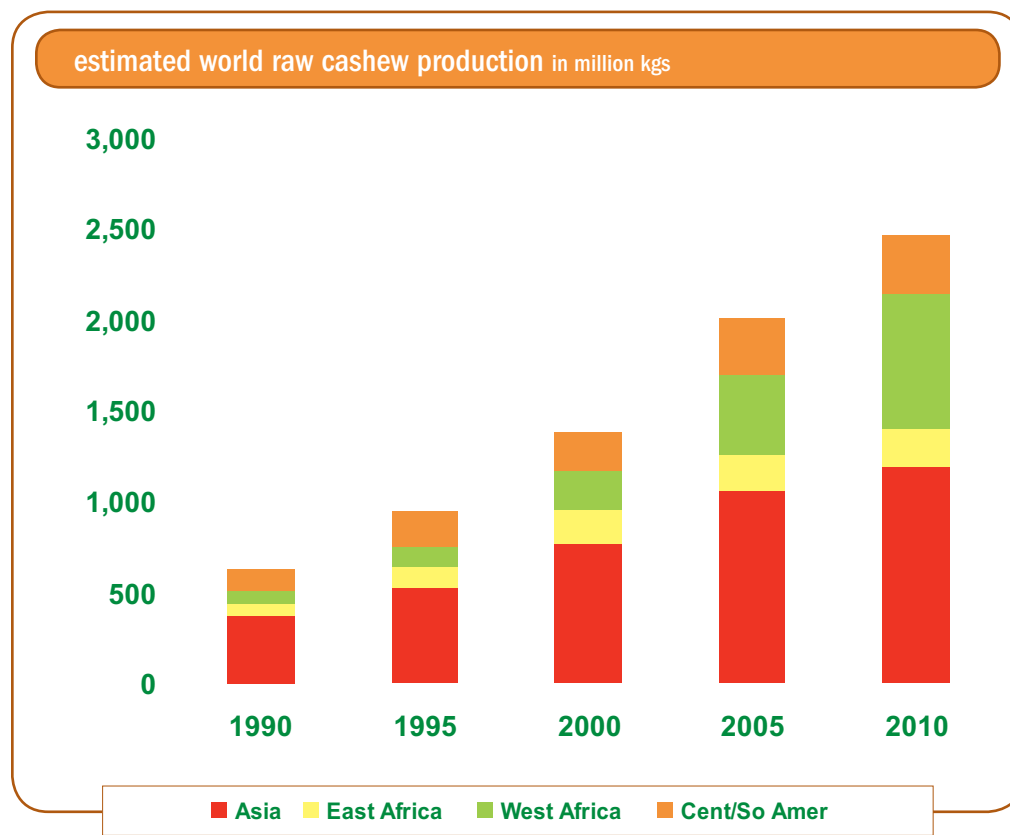


Cashew apple ready for harvest



## RAW PRODUCTION TRENDS

The edible cashew kernel is encased within a kidney-shaped seed or pod at the bottom of a cashew “apple.” Cashews are not harvested in the conventional sense. Once the cashew apple falls to the ground, the cashew seed is removed. Cashew seeds are gathered and taken to various collection points from where they are delivered to a processing facility. After drying, the cashew kernel is separated from the seed either mechanically or by hand.



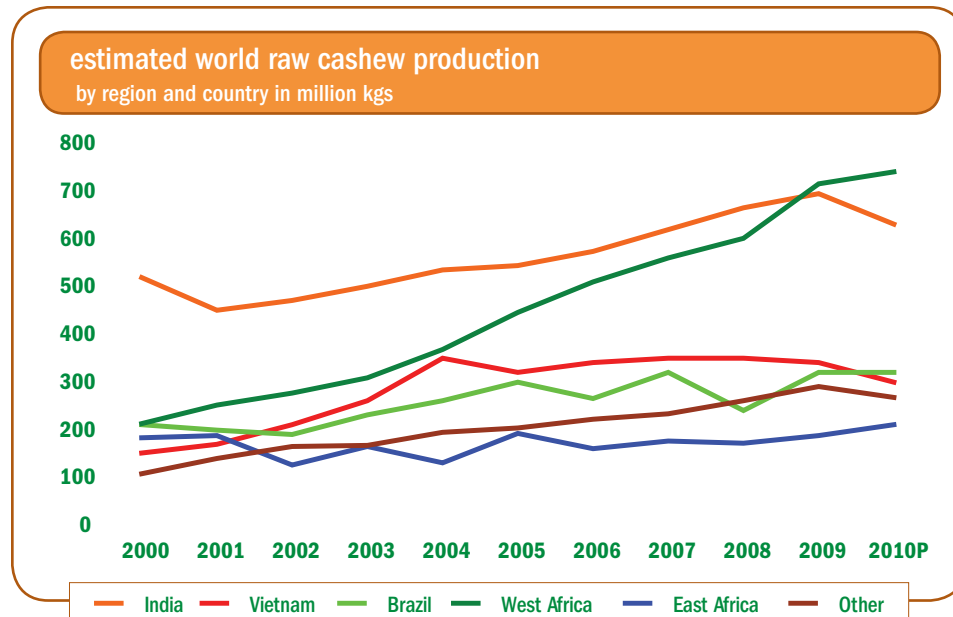
source: Red River, Industry, FAO

World raw cashew production is projected at 2.468 million kgs in 2010, somewhat below the 2.548 million kgs estimated for 2009. While output in Asia (primarily in India and Vietnam) has constituted the bulk of production, the accompanying graph highlights the growth of production in Africa, particularly in the western portion of the continent.

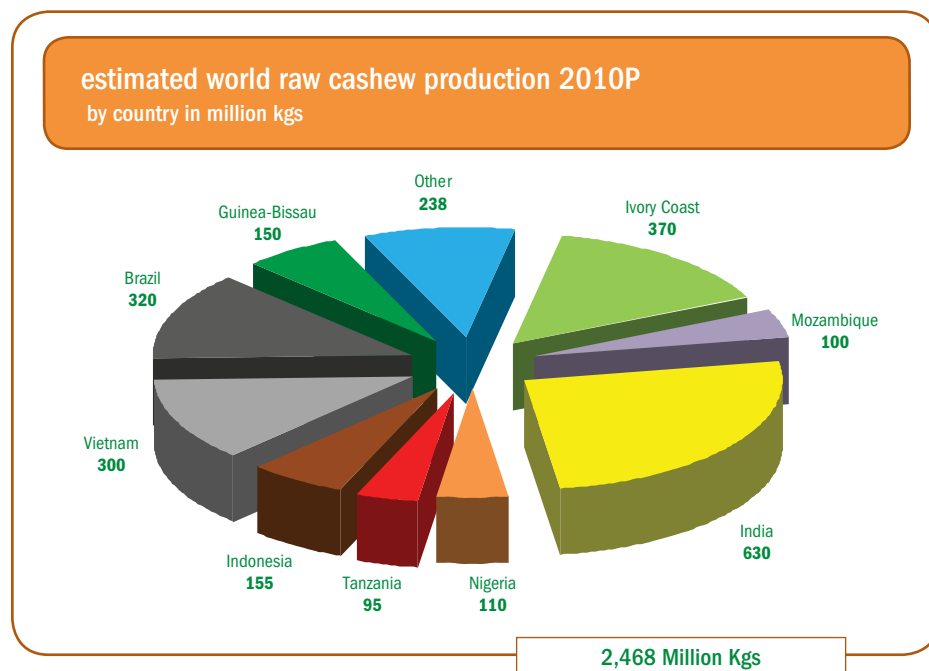
Cashew production is extremely difficult to estimate, and production data have to be offered with caveats. Estimates from different sources for any one producing country can vary significantly. Cashew seeds are not weighed during any of the collecting, buying, or transfer stages. The crop size is estimated after the raw cashews have been processed and some indication of average kernel weight has been ascertained. Thus, raw cashew estimates are extrapolations from processing outcomes and the “best guesses” of those active in the industry. Additionally, cashews are harvested from trees growing in their natural habitat, as there are few plantations in most countries. Cross-border activity, particularly in West Africa, inhibit accurate accounting by country. Further, there is minimal processing in most West African countries, hence there are few sources from which reasonable estimates can be ventured in that region. Lastly, there are few organizations or individuals in certain origins that will offer estimates. Thus, those in the cashew trade are forced to make “best guesses” on production, a limitation for all in the industry.

# RAW PRODUCTION TRENDS CONTINUED

The trend of raw cashew production is upward in most of the major producing countries and regions. The official Indian government estimate for 2009 was 695 million kgs, although other industry sources cite lower figures. India, Vietnam, and Brazil--the major producers and exporters of kernels--jointly accounted for over 50 percent of the world's raw cashew output in 2009. Production in the Ivory Coast was estimated by the African Cashew Alliance at 350 million kgs, making that country the world's second largest producer in 2009. The Ivory Coast is likely to remain the world's second largest producer in 2010, especially if it reaches an initially projected level of 370 million kgs.



source: Red River, Industry, FAO



source: Red River, Industry Estimates as of April-May 2010

Projections for individual producers for 2010 are displayed in the accompanying pie chart. Early estimates for India placed its output at 630 million kgs. If the original 2010 estimates were to hold, the top five producers, including Vietnam, Brazil, and Indonesia as well as India and Ivory Coast, would be expected to account for more than 70 percent of all production in 2010.

# EXPORTABLE GRADES

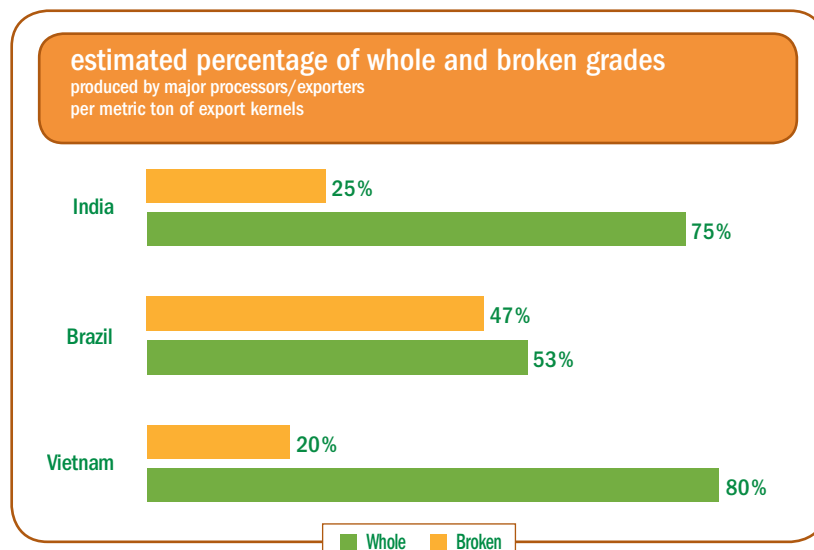
**estimated amount of export-quality kernels**  
produced by major processors/exporters  
per metric ton of raw cashew nuts

Processing Country	Country of Origin	kgs
<b>India</b>	Benin, G-Bissau, Togo	240
	Ivory Coast, Senegal	220
	Indonesia	240
	Nigeria	200
	Kenya, Mozambique	200
	India	230
<b>Brazil</b>	Brazil	210
<b>Vietnam</b>	Vietnam	230

Generally, cashew kernel yields range from about 20 to 24 percent. Thus, one metric ton of raw cashews can yield between 200 and 240 kgs of edible kernel wholes and pieces after processing, depending on country of origin. A crop that yields 1 million kgs of cashew wholes and pieces, for example, might be estimated to have been 4.2 to 5.0 million kgs of raw production.

The adjacent table displays the estimated average amounts (in kgs) of exportable grade kernels produced per metric ton from the three major exporting countries. *These percentages may vary from year to year and even during the same season because of weather conditions, the quality of the seed, the time of the season when the crop is being processed, and the capabilities of the processor.* In Vietnam, for example, each metric ton of raw cashew seed produced and processed in that country yields about 230 kgs (23 percent) of exportable grade kernels. Thus, the 2010 Vietnamese crop, estimated at 300 million kgs, would yield about 70 million kgs of exportable grade wholes and pieces.

source: Industry

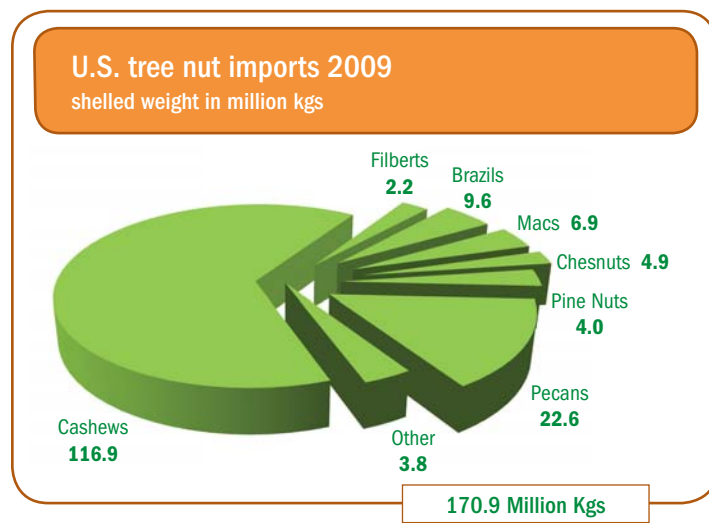


The accompanying graph displays the estimated percentage of whole and broken grades produced by the three major producers / exporters. The high percentage of broken grades in Brazil is the result of mechanical processing, while most processing in India and Vietnam is labor intensive, done by hand.

source: Industry



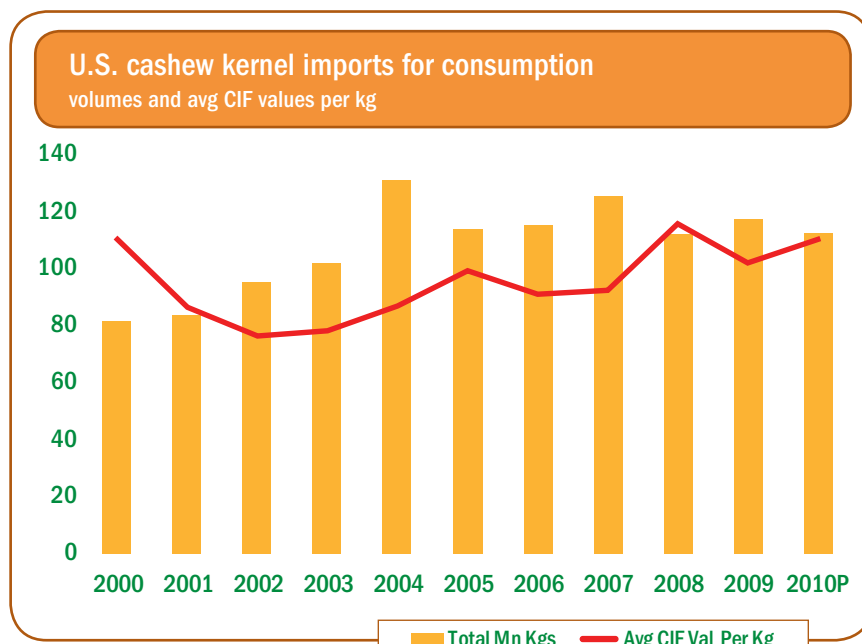
# U.S. IMPORTS



source: U.S. Department of Agriculture

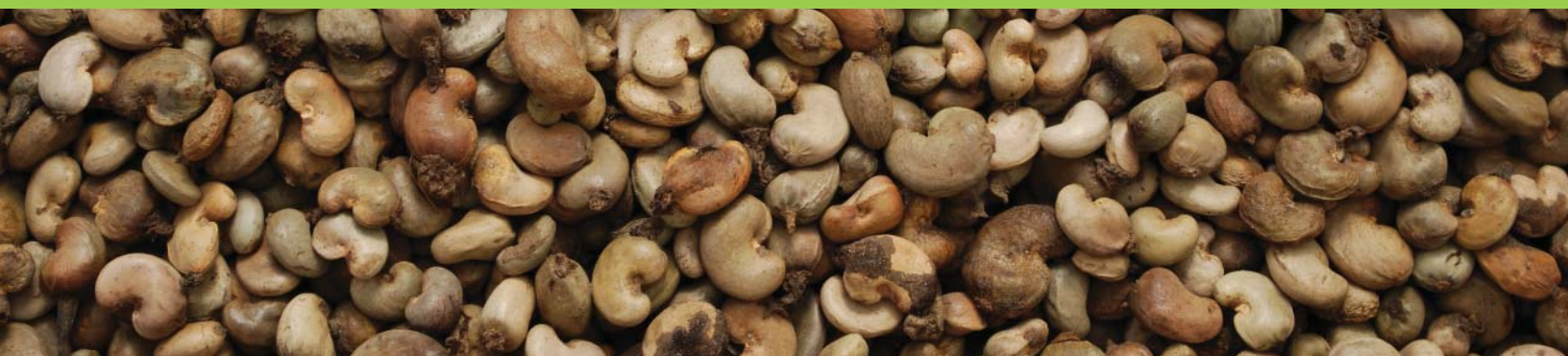
Cashews remain the largest segment of the U.S. tree nut import market, and represented 68 percent of all shelled tree nut imports in 2009. (The accompanying chart does not include tree nuts imported in-shell, particularly brazil nuts and pecans.) Cashew imports were up 5 million kgs in 2009 to 117 million kgs. For the first four months of 2010 imports were 32 million kgs, only slightly below the level of imports during the same period in 2009, suggesting an import level for 2010 of 112-115 million kgs.

U.S. cashew imports for consumption rose annually through 2004 and, with the exception of 2007, have been at stable levels since then, between 114 and 117 million kgs. The sharp price increases between 2007 and early 2008 gave way to a price decline in 2009, as evidenced by the decline in the average CIF value from \$5.79 per kg in 2008 to \$5.10 in 2009. The 2009 average CIF values for Vietnam and Brazil were \$.86 and \$.73 below 2008 levels, respectively. The average CIF value of imports from India fell \$.37 between 2008 and 2009.



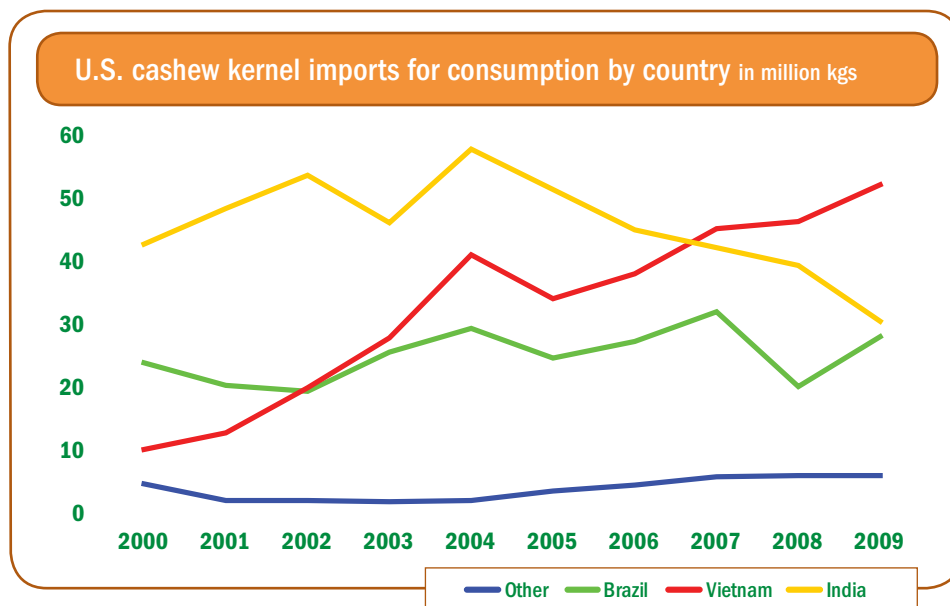
source: U.S. Department of Agriculture  
2010 projection as of imports through April

Cashew seeds drying in the sun



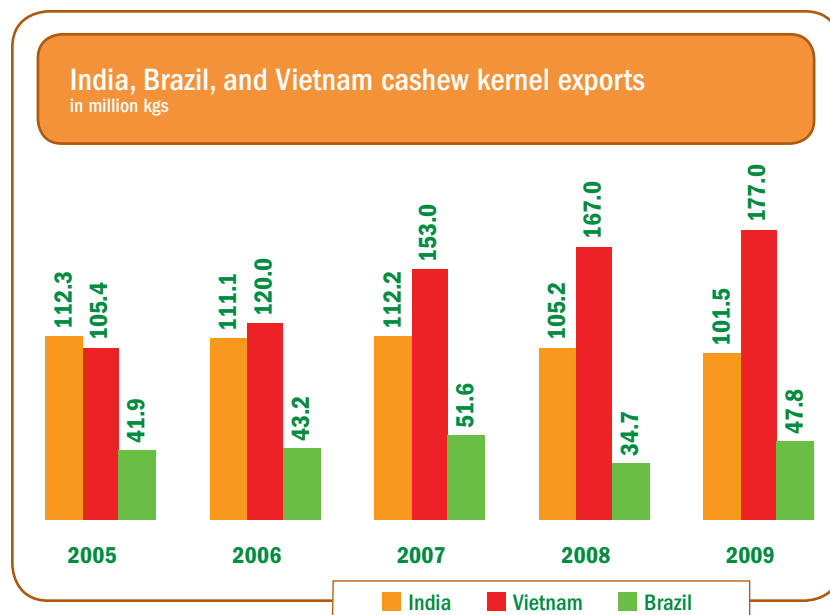
## U.S. IMPORTS CONTINUED

Vietnam is the leading source of U.S. imports, accounting for 45 percent of the U.S. market in 2009, up from 41 percent in 2008. India commanded over 50 percent of the U.S. import market until 2002, but has been overtaken by Vietnam and represented only 26 percent of the U.S. market in 2009. U.S. imports from Brazil were 24 percent of total imports as Brazil recovered from the short 2008 crop. Vietnam continues to maintain a clear price advantage over its competitors. The average CIF value of its cashews imported into the U.S. was \$4.82 per kg in 2009 while Indian and Brazilian cashews were at \$5.64 and \$5.08, respectively.



source: U.S. Department of Agriculture

## KERNEL EXPORTS

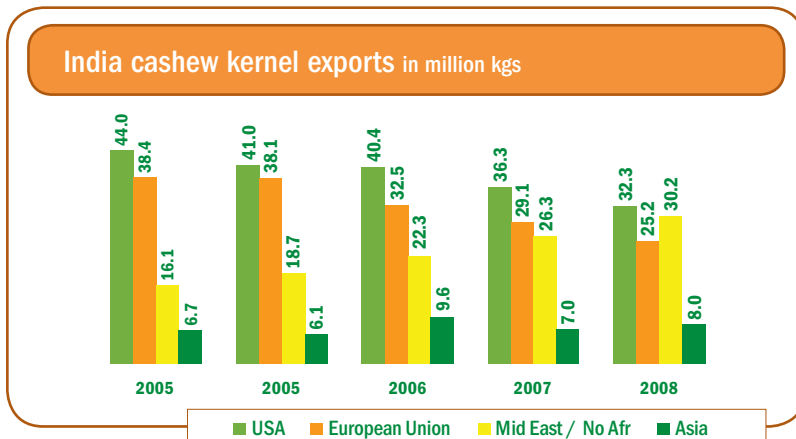


source: Industry

N.B.: India data includes exports from ports of Mangalore, Cochin, and Tuticorin only.

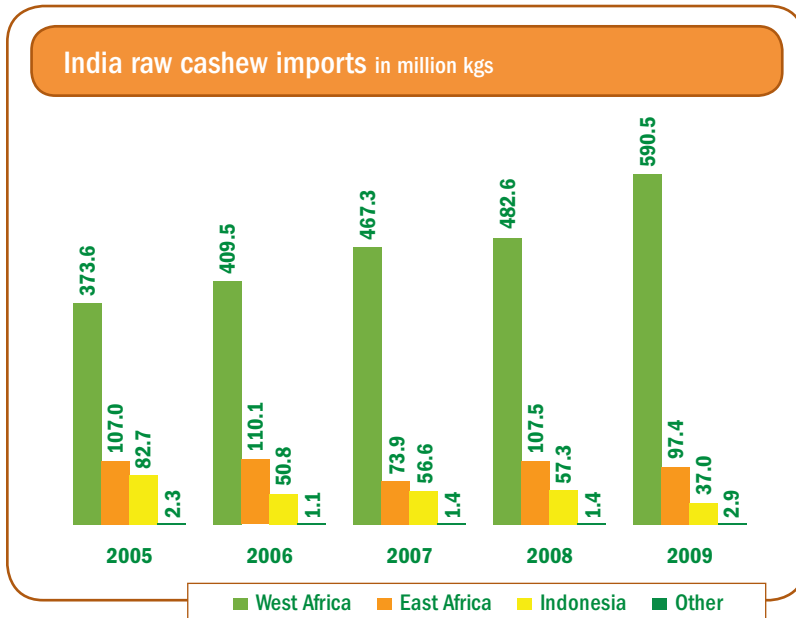
Total kernel exports from the three major world suppliers--India, Vietnam, and Brazil--were 326 million kgs in 2009, up about 20 million kgs from the 2008 level of 307 million kgs. Collectively, the three major suppliers shipped 113 million kgs to the U.S. and 72 million kgs to the European Union, about 57 percent of their total exports. Vietnam has made continual gains vis-à-vis its competitors in the international cashew trade, primarily because of its growing export market in the U.S. Total Indian exports were essentially flat from 2005 through 2007, then fell about 11 million kgs between 2007 and 2009. Brazilian shipments rebounded in 2009 from the short 2008 crop.

# INDIA EXPORTS AND IMPORTS



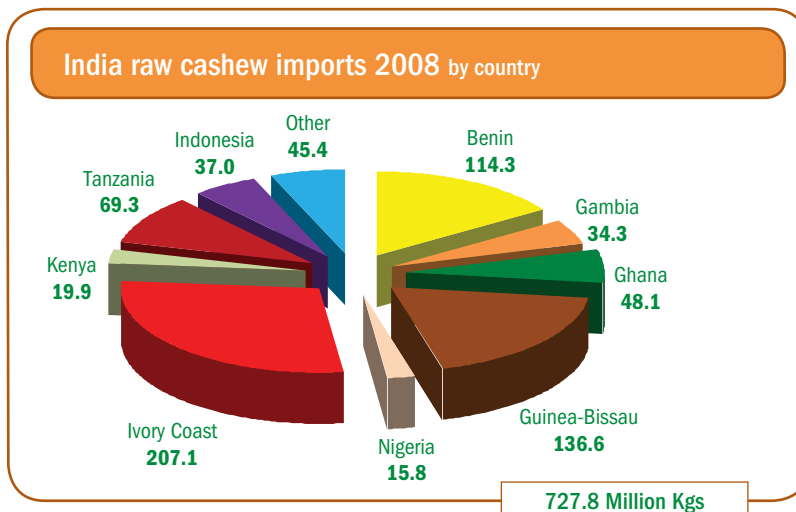
source: Industry  
 N.B.: India data includes exports from ports of Mangalore, Cochin, and Tuticorin only.

Indian exports continue a gradual decline, as illustrated in the accompanying graph. (The data represent exports from the ports of Tuticorin, Cochin, and Mangalore only, but these ports account for approximately 95 percent of all Indian exports.) Declining exports to the U.S. and the EU are clearly evident, but exports to the Middle East (which here include Turkey) continue to increase and exceeded shipments to the EU in 2009. The United Arab Emirates (16.7 million kgs) and Saudi Arabia (4.5 million kgs) accounted for more than three fourths of India's exports of 27.6 million kgs to the region. Exports to North Africa, including Egypt, rose from 1.9 to 2.6 million kgs between 2008 and 2009.



source: Industry

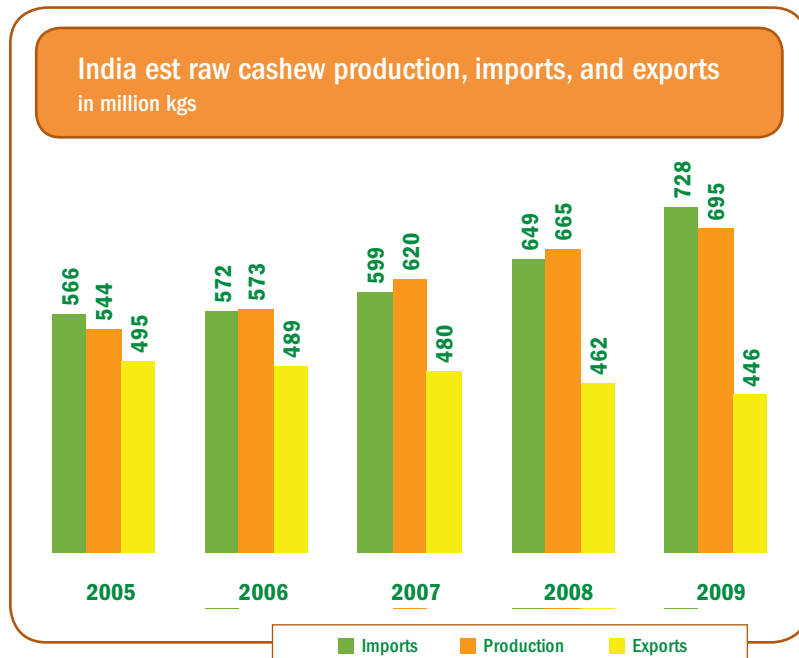
India continued to import increasing volumes of raw cashews in 2009, reaching 728 million kgs, up from 649 million kgs in 2008. More than 80 percent of India's imports were sourced in West Africa, primarily from Ivory Coast, Guinea-Bissau, and Benin. Another 13 percent of India's imports originated in East Africa in 2009, primarily from Tanzania. Indonesia remained another major source of Indian imports, providing 37 million kgs in 2009. The pace of raw shipments to India through March of 2010 indicate this could be still another year of record imports.



source: Industry

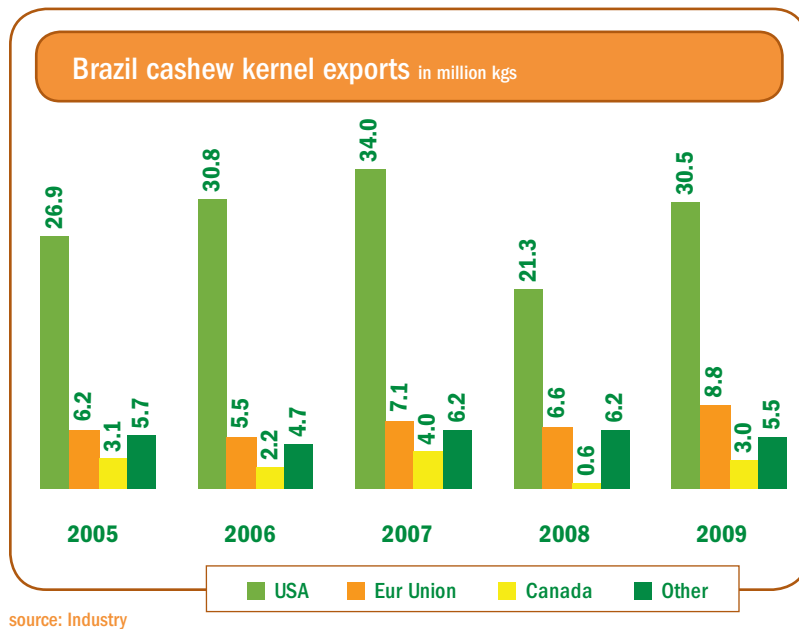


## INDIA EXPORTS AND IMPORTS CONTINUED



The graph opposite displays the shift in the overall Indian cashew picture over the last few years as imports have surged and exports have declined. (Note the data are in raw weight.) Growing domestic consumption has prompted the higher volume of imports. Between imports and production, India accounted for an estimated 1.4 billion raw kgs in 2009, more than half the world's total production.

## BRAZIL EXPORTS

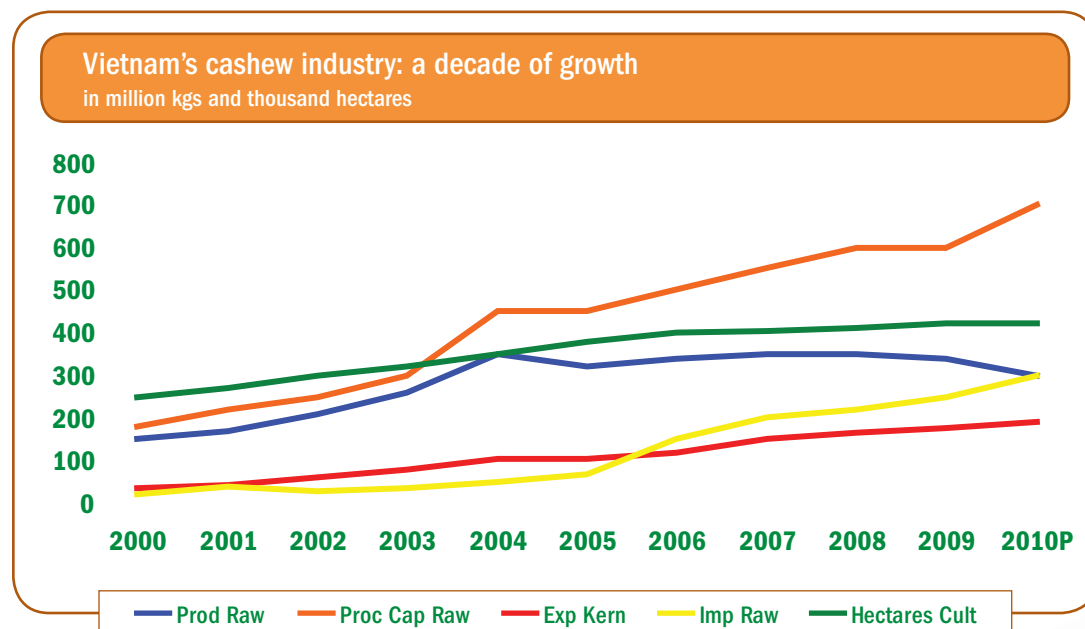


Brazilian exports recovered in 2009, reaching 48 million kgs, 13 million kgs above 2008 exports of 35 million kgs, and the second highest export volume on record. Brazilian exports to the U.S. were 30.5 million kgs, 64 percent of all shipments. Nearly 9 million kgs were destined for European Union ports, a record volume of Brazilian shipments to the European Union. Exports to Canada returned to 3 million kgs after falling to a negligible 600 metric tons in 2008. A normal crop size of 320 million kgs in 2009 propelled Brazil's exports last year. A similar crop size is expected in 2010, and export levels this year are projected to be about the same as in 2009, 45-50 million kgs.

# VIETNAM

Vietnam hosts perhaps as many as 225 processors. The rapid growth of the industry has introduced some difficulties caused by inexperienced processors who have been unable to deliver on contracts and who have produced quality below expected Vietnamese standards. Nonetheless, with productive area at 420,000 hectares and processing capacity nearing 700 million kgs annually, Vietnam is the leading player in the world cashew market and the foremost exporter of kernels. In 2009, 52 million kgs or 45 percent of U.S. cashew imports for consumption were sourced in Vietnam, while only 31 million kgs or 26 percent arrived from India. Through the first four months of 2010, Vietnam accounted for just under one-third of all U.S. imports; however, the bulk of U.S. imports sourced in Vietnam do not arrive until the mid-to-late summer, and that percentage will increase.

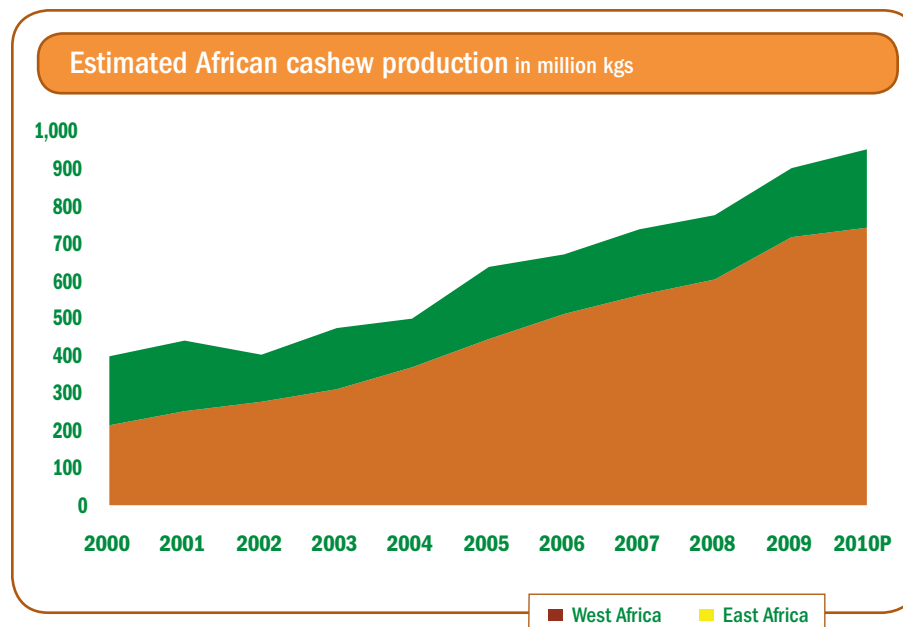
Vietnam's 2009 production of 340 million kgs fell somewhat short of initial projections of 350 million kgs. Quality of this year's crop has been reported as very good. The 2010 crop was first projected at 400 million kgs, but hot weather during flowering reduced yields and the crop estimate was sharply reduced to about 300 million kgs as of mid-May. This guarantees Vietnam will be relying on higher imports of raw nuts from Cambodia and West Africa in 2010, perhaps as much as 300 million kgs. In 2009 Vietnam imported approximately 250 million kgs of raw cashews. West Africa alone accounted for 122 million kgs, of which Vietnam sourced 76 million kgs from the Ivory Coast. Large quantities, perhaps as much as 80 million kgs, were sourced from Cambodia, which does not have any processing capacity. To help meet its continuing demand for raw product, Vietnam entered an agreement with Cambodia earlier this year to lease 6,000 hectares for cashew production.



source: Vietnamese Industry



## AFRICA



source: Industry / African Cashew Alliance

African production has been increasing as Indian and Vietnamese demand for raw cashew product rises. In 2009, India imported 688 million kgs of raw cashews from both West and East Africa, 95 percent of India's total raw cashew imports. The Ivory Coast was again India's single largest source, providing 207 million kgs to Indian processors. Vietnam imported an additional 122 million kgs from West Africa.

West African production has registered substantial increases in recent years. Total output in 2009 was estimated at 740 million kgs. Production in the Ivory Coast was estimated at 350 million kgs, making that country

the second largest producer in the world behind India. Guinea-Bissau may have reached a total of 150 million kgs. Production in East Africa, on the other hand, was about 186 million kgs in 2009 with Mozambique and Tanzania producing about 95 and 80 million kgs, respectively. Early projections for the Ivory Coast suggested the 2010 crop could be 370 million kgs, again second only to India. East African production could exceed 200 million kgs if Tanzanian production rebounds after a relative short crop in 2009.

### AFRICAN CASHEW PRODUCERS

#### West

Benin  
Burkina Faso  
Ghana  
Guinea  
Guinea-Bissau  
Ivory Coast  
Mali  
Nigeria  
Senegal  
The Gambia  
Togo

#### East

Kenya  
Madagascar  
Mozambique  
Tanzania

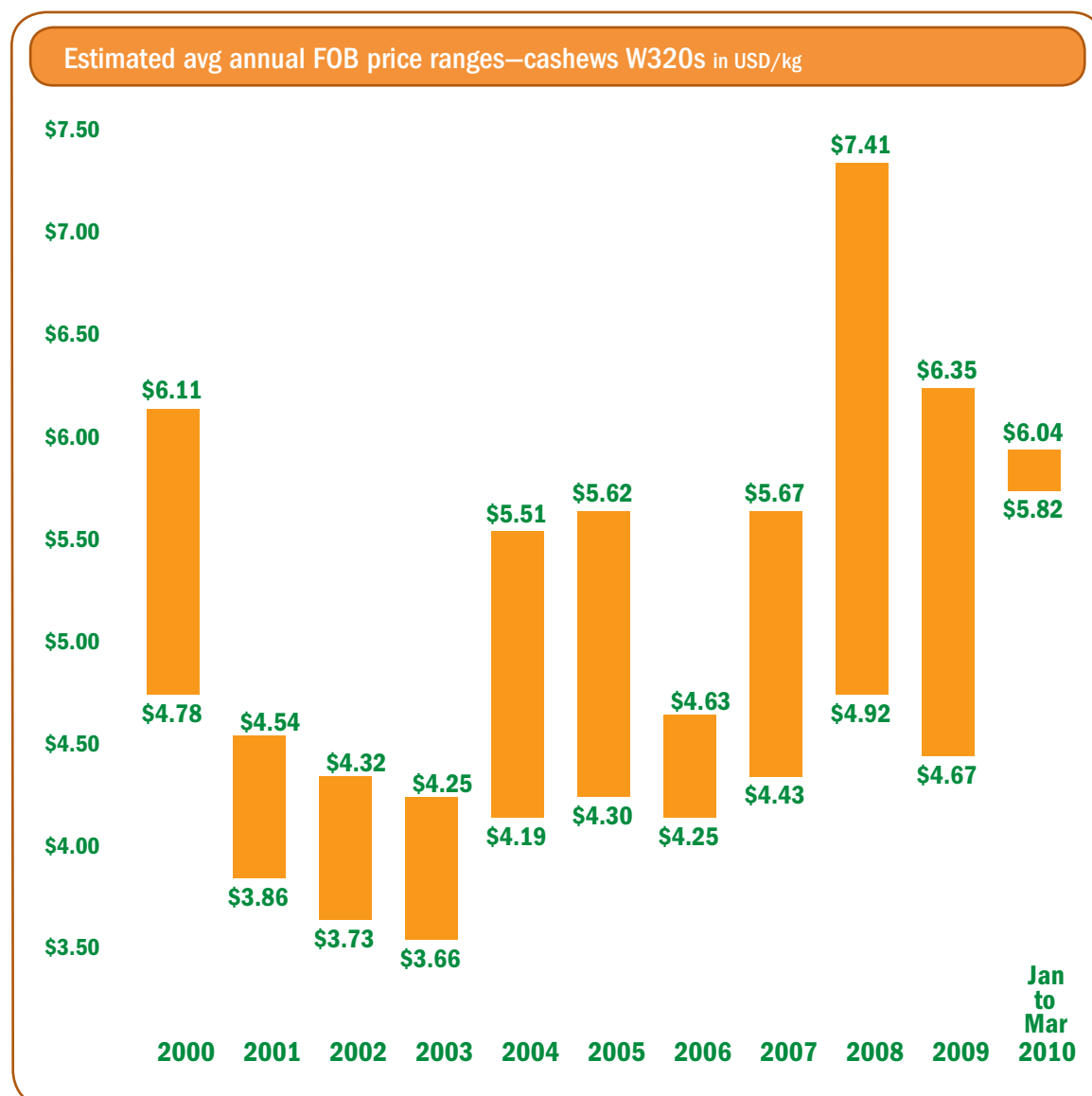
Organized in June 2005 and operational one year later, the African Cashew Alliance (ACA) is the African cashew industry's platform and facilitator for advocacy, information exchange, investment promotion and market linkages. ACA aims to increase the competitiveness of Africa's 15 producing nations in the world cashew market. The Alliance's mission is to expand processing capacity, attain consistency and quality of production, improve the overall economic and regulatory environment of the cashew sector, and promote African cashews. In 2009 the Alliance helped funnel a \$25 million grant from the Bill and Melinda Gates Foundation to the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) a German development organization for aiding the industry in Benin, Burkina Faso, Ivory Coast, Ghana, and Mozambique. The project is implemented by GTZ, the U.S.-based NGO Technoserve, the Dutch-based NGO FairMatchSupport and ACA. It is designed "to improve the quality of raw cashew nut cultivation, increase farmer productivity, improve linkages between smallholder farmers and the marketplace, build African processing capacity, and promote a sustainable global market for African cashews." In 2009 the Alliance received a grant from USAID/West Africa to help cashew entrepreneurs in the region obtain access to financing. The Alliance is headquartered in Accra, Ghana. (More info is available on the ACA website [www.africancashewalliance.com](http://www.africancashewalliance.com)).



## PRICES

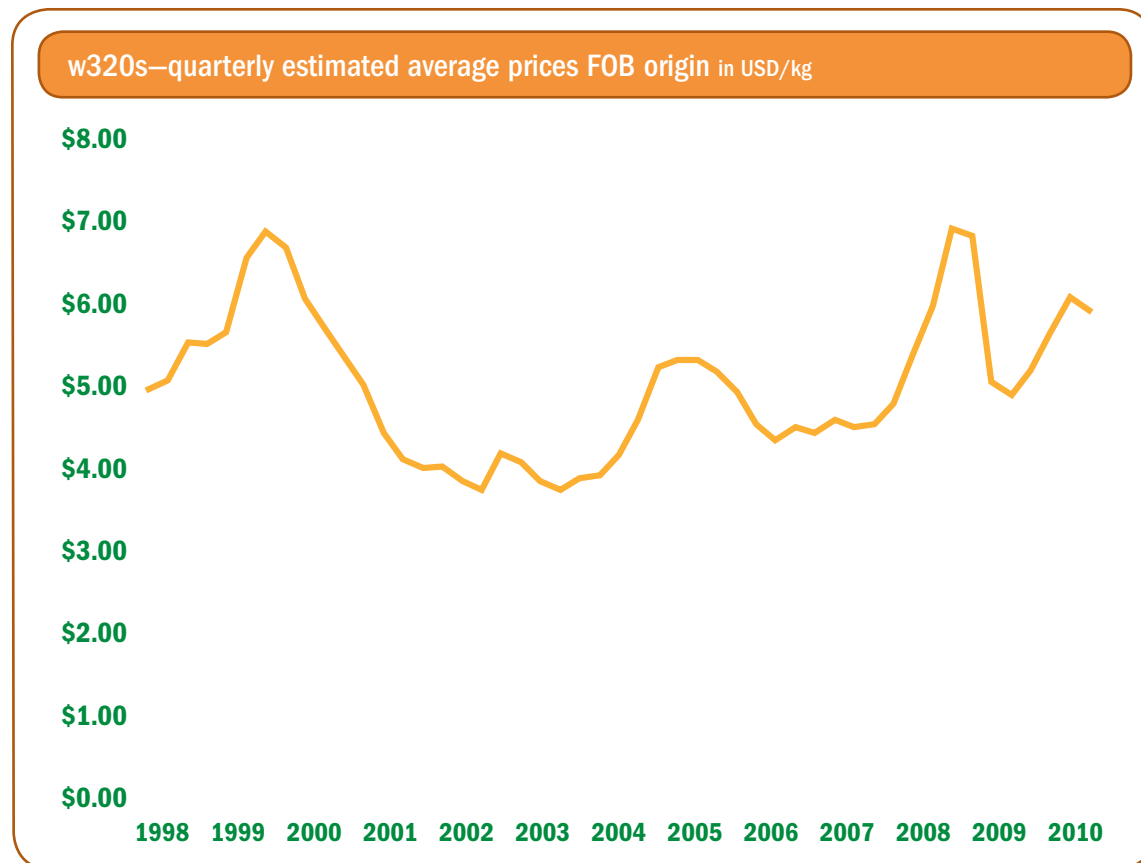
Between 2000 and 2003 estimated average monthly FOB prices for W320s generally declined, but then shifted upward in 2004 and 2005. Prices fell back in 2006 as supplies increased, but began a sharp increase in mid-2007 as shippers in Vietnam and then India defaulted and delayed on their contracts. In June 2007 the estimated average price was about \$4.50 per kg; by year's end the price had risen to nearly \$5.70 per kg. Price increases continued into 2008 and by mid-year the estimated average FOB price had climbed to \$7.40 per kg. Thus, the price differential during the 2007-2008 season reached \$2.90 per kg. The graph clearly depicts the volatility of the market between 2007 and 2008. The 2007-2008 period was an historic disruption in the cashew market, marked by the Brazilian 2008 crop shortfall; inflationary pressures and new, inexperienced processors in Vietnam; and by defaults, demands for contract renegotiations, and delayed shipments in both Vietnam and India. Volatility led to uncertainty and, as a consequence, an extremely challenging period for importers. Prices fell back under \$5.00 per kg by the end of 2008.

With higher domestic demand in India and Indian-Vietnamese competition for African raw cashews, average FOB prices began a steady climb in early 2009 from an estimated low of nearly \$4.70 per kg to a high of nearly \$6.40 per kg by year's end. Through the first quarter of 2010, estimated average monthly FOB prices for W320s hovered around the \$6.00 mark.



source: Industry

## PRICES CONTINUED



source: Industry

The accompanying graph depicts the estimated average quarterly price movement of W320 cashews since 1998. The price spike in 1999 was caused by crop shortfalls and processors contracting in advance for more product than they were able to deliver. Many processors defaulted on their commitments, leaving importers with an eleventh hour need to fulfill their own obligations and resulting in extremely strong demand which led to intense upward pressure on prices. The price plunge in 2000 reflected higher worldwide supplies. The estimated average quarterly prices fell to about \$4.40 per kg by 2001, and remained at historic lows, between \$3.75 and \$4.20 per kg through 2003. The market was relatively stable for these three years.

Cashew prices began increasing in early 2004 in part because of the collective efforts of Indian packers to seek higher prices. The Indian example was followed by Vietnamese packers. The price increase was also a reflection of the higher prices being paid for all nut products. By the end of 2004 and early 2005 the quarterly estimated average price was \$5.30 per kg. Prices began to decline in late 2005 and from then until mid-2007 the estimated monthly price ranged from about \$4.30 to \$4.60 per kg. This relatively low price in the first two quarters of 2007 was attributed in part to the sale of large quantities of India's 2006 crop to make way for the even bigger 2007 crop of 620 million kgs.

Prices rose sharply beginning in mid-2007, reached a quarterly high of more than \$6.90 per kg in the second quarter of 2008, matching the 1999 price peak, and then began to abate. The price surge originated with Vietnamese shippers. Faced with higher than expected raw cashew prices, some delayed and then defaulted on shipments, forcing buyers to bid up prices. By the last quarter of 2008, the quarterly average had declined to just above \$5.00 per kg. Prices increased throughout 2009, reaching nearly \$6.35 per kg by the end of the year. For the first three months of 2010, prices were relatively stable, ranging from about \$5.80 to \$6.05 per kg, reflected in the average quarterly price of \$5.93 per kg.

## INDUSTRY PERSPECTIVE

The cashew industry recovered from the difficult mid-2007 to mid-2008 period. At that time a series of market misfortunes converged to send prices spiraling upward: short and off-quality Vietnamese crops in 2007 and 2008, respectively; a short 2008 crop in Brazil; and delays and defaults in Vietnam and later India. Since early 2009 prices have been trending upward, while exports to the U.S. and EU were rising above 2008 levels. New markets have come into play, including the Middle East; India alone increased exports to that region from 15 million kgs in 2005 to 28 million kgs in 2009. Vietnam has a large cross-border trade with China, estimated at 30-35 million kgs in 2009. While the growth of the Vietnamese industry slowed in 2009, it appears to be making gains in 2010 based on projections for higher imports and processing capacity. However, production estimates have been drastically scaled back to 300 million kgs. India's appetite for African cashews is unabated as that country reached another record level of raw cashew imports of 728 million kgs in 2009. The Brazilian industry rebounded from a particularly difficult year in 2008 with a crop of perhaps 320 million kgs in 2009 and could produce another crop of 320 million kgs in 2010. U.S. demand, as measured by cashew kernel imports, rose from 112 million kgs in 2008 to 117 million kgs in 2009. U.S. imports through April 2010 indicate steady demand with total imports for the year at perhaps 112-115 million kgs.

Harvested cashew apples





Red River Foods is pleased to provide information about the world cashew trade. The information and data herein represent estimates from a variety of sources as well as our own estimates. We wish to extend our grateful appreciation to the many individuals who helped make this brochure possible by contributing to our research. The company makes no warranty about the accuracy of these data and assumes no duty to update any materials contained in this report. Within the industry it is generally accepted that production, export, and other data can be understated, overestimated, or even unreported.

Red River wishes to emphasize that unforeseen events caused by political, legal, economic, or other circumstances, as well as weather conditions, could affect current expectations for any one market or for the world situation generally. Readers should not unduly rely on any estimates, forward-looking statements, or data cited herein to reach conclusions or make decisions about the various markets or market prices.

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stages in the development  
of a cashew nut



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