

# **WHAT THE WORLD FOOD CRISIS MEANS FOR SOUTH AFRICA**

**By Charles S. Sosland**

**Joint Annual Meeting of South Africa's Chamber of Milling and  
Chamber of Baking  
Lagoon Beach Hotel  
Cape Town, South Africa  
March 13, 2009**

As I was thinking about what I would say to you today, I began looking at the lists many media-prone authorities typically compile at the end of the old and the start of the new year. My goal was to measure the rank that the world food crisis we all experienced in the past year earned in these compilations. Imagine, if you will, my shock in not coming up with a single list of those published by leading news organizations in America and Western Europe that even accorded what I think all of us in this room would rank as a crisis of massive global implications a place in the top five or top ten lists of what one expert called the “defining moments” of 2008.

How could it be possible that an event that extended roughly from the middle of 2007 to the middle of 2008 that was seen as threatening serious starvation to millions of people, food shortages for hundreds of millions more, and boosted prices for human sustenance to history-making

levels not be acknowledged in such list-making? How did an event that some observers at its moment termed a serious threat to humankind's survival manage to escape mention among such chosen occasions as the Beijing Olympics, Russia's attack on Georgia and the election of Barack Obama? Why wasn't the food crisis accorded importance equal to the global credit crisis, the start of a worldwide recession or even the disintegration of Somalia and Zimbabwe?

As the head of a publishing company that is based primarily on grains and grain-based foods, I gained little in the way of comfort from one observer who cited the gyration of crude oil prices as an event worthy of inclusion in his memorable list. Even though grains and crude oil share membership under the common umbrella of commodities and even though both experienced a price climb to history-making highs and a subsequent collapse, I strongly resist categorizing these two as subject to the same dynamics, economic or political. At one extreme, the world and nations, even developed ones, could get by without crude oil; none of us could survive without food. Similarly, supply forces, one buried willy-nilly in the earth and the other made by the cultivation of soils and fields, are totally different. A similarity arises on the demand side where personal incomes play a hugely important role in determining how much oil and how much grain is wanted, acquired and put into storage.

Let me point out that the absence of the food crisis of 2008 from the list of the year's seminal events struck me as bearing a similarity to the

listing of the Seven Wonders of the World assembled by Greek scholars early in the modern era. That earlier list included the Hanging Gardens of Babylon, even though no one has been able to identify the garden's existence, as is the case with the other wonders. Is it possible that something you and I consider so momentous will be left out of future lists of important events in this era, and that if it ever does make a list, it will be defined only by the imagination of economists several centuries later, like those Hanging Gardens. The more I fretted about that possibility, the less likely it seems that this will or, may I say, should occur.

Our, or better said, the food crisis did occur in the past year. The evidence I will cite is not just the climb in prices into levels three times and more higher than ever seen before; it was not solely the empty storage bins in important producing and importing countries; it was not just the fall in ending carryovers to levels that provided hardly several weeks of reserves; it was not limited to the many millions of people who suffer from inadequate diets.

Like wars and military conflicts that are best defined by describing national mobilization efforts, the world food crisis prompted some of the strongest responses ever recorded by a broad array of nations. While these responses to the food crisis had many variations, almost all had the single aim of, first, assuring adequate domestic food supplies and, second, damping prices. This was radical change from the immediately preceding period when concerns about food supply adequacy were the exclusive

province of under-developed nations, mainly on this continent, where scratching for sustenance ruled and the urgent need for global food assistance dominated. Suddenly, as the food crisis evolved, nations that regarded themselves as self-sustaining felt prompted to take steps meant in their minds to safeguard domestic food availability. This was particularly the case for countries that not many years before had themselves relied on imports and even assistance to assure an adequate food supply. The transformation that was experienced from self-reliance to these worries had to be in response to a powerful call, the consequences of which we are only just beginning to contemplate.

We like to consider these responses to the food crisis and its gauge in the form of soaring grain prices as being in three broad categories — first, steps taken by surplus producing nations, mainly exporting countries; second, steps taken by countries that rely on imports for a sizable share of their consumption, and third, and most often overlooked in discussions thus far, countries where, after sharp internal debate, nothing was done.

This last grouping is illustrated for my purposes by a single nation, the United States of America. Its importance to understanding global reaction to the food crisis is best illustrated by a story my father, who is our long-time editor-in-chief, likes to tell to our new journalists. It concerns the newspaper in a small community where on a Saturday afternoon was scheduled the wedding of the daughter of the town's

leading banker and the son of the leading retail merchant. A brand new reporter was assigned the task of covering this event, and, thus, the managing editor was surprised when he came into the office that afternoon and observed the young reporter with feet up on his desk. “Why aren’t you handling your assignment?” the editor asked. To which the young reporter replied, “There’s no story. The bride didn’t show up.”

In that context, it is tempting to say that America, and other countries we will discuss, didn’t show up in reaction to the global food crisis. As you might surmise, we will make the opposite case. America participated in spades by rejecting what were very intense domestic pleas to respond. Led mainly by the baking industry as well as by poultry and livestock producers who were all negatively affected by soaring food and feed ingredient costs, a heroic effort went into trying to persuade the government to take actions meant to moderate supply tightness and soaring prices. Pressures were focused on three areas — cutting back on foreign relief shipments; releasing acreage barred from crop production by being tied up in the so-called conservation reserve program, and reducing mandates requiring blending of grain-based ethanol with gasoline as well as eliminating subsidies for the ethanol industry.

Within days of advocating the curtailment of foreign relief shipments, the groups asking for this action realized that it would never be adopted in light of reports of mounting hunger in many poor countries. Let me emphasize that withdrawing on this position should send a positive

message about America to the world, especially since so many other countries in the same position acted in totally selfish ways. When it came to the pleas for releasing land tied up by farmers under conservation contracts, and thus not eligible for growing crops, except after paying stiff penalties, it was the decision of the Secretary of Agriculture denying this request that merits inclusion in this commentary. Two factors helped the Secretary make that decision — one being the complexity of the acreage program that made partial release of farmland difficult, and the other the realization that such a move would not increase domestic or world grain supplies for at least a year after any land was released, meaning that its impact would have been psychological, and not real when it meant expanded supplies to weigh on prices.

Regarding ethanol's role in fueling the world food crisis, we will examine these issues in some detail. Suffice it to say that the Bush administration denied the need or appropriateness of any of the steps sought by bakers and the meat and poultry industry. Washington chose to cite the central role it sees for ethanol as an alternative fuel to crude oil. The Bush administration determined that mandated use of ethanol in gasoline, the import duty that effectively bars imports and tax exemptions that are subsidies to ethanol makers are all needed by this industry because of its "infancy." The food industry scoffs at this argument, contending that ethanol manufacturing and subsidies have been around for 30 years, which hardly makes the industry an "infant."

Let me quickly acknowledge that other major exporters, like the European Union and Canada, also refrained from interfering with exports, even though domestic pressures similar to those just described in the U.S. were present. I am confident that these decisions not to react to the world food crisis — a story as important as those who did take action — by limiting exports was driven by the desire to avoid interfering with either commercial trade or relief shipments. These nations recognized their responsibility to continue to provide food to countries that must rely on imports. While it is notable that the European Union saw no need to limit exports at the height of the food crisis, it did cut back required usage of grain-based ethanol in response to sharply higher prices and concern about the adequacy of supplies for food and feed.

What happened in 2008 was quite different from previous similar situations which resulted in actions to limit exports. The United States on two prior occasions, once during the Nixon administration to restrain a sharp run-up in prices and once in the Carter administration as a reaction to Russia's invasion of Afghanistan, put a brake on exports. Both of these experiences proved hugely negative by failing to achieve their desired goals. They also caused considerable chaos in domestic markets. The Carter embargo was particularly disastrous as it was followed by nearly a decade of agricultural recession and the need for expanded assistance for U.S. farmers. These results combine to make it almost inconceivable that an export embargo would ever be used again by an American president.

No one has even hinted that this idea was mooted by the Bush administration, which may be surprising in light of its aggressive exercise of presidential powers.

So far as those countries are concerned that took specific action to limit exports in response to supply and price concerns, the list ranges from some very small players to countries like Russia and Ukraine that aspire to a significant export role but seem to have scant knowledge of the responsibilities required of a reliable exporter. As the International Grains Council has noted, many of the moves taken to limit exports were implemented after the countries involved had already exhausted supplies available for foreign shipment. Indeed, these moves for the most part largely exerted a bullish impact on markets which interpreted every export ban, no matter how meaningless, as a definite sign of catastrophic shortage. Thus, it's probably right to say these moves exerted more of a psychological than real effect.

Also, as we review this list of steps taken to limit exports, it's important to know that most of these actions have been subsequently rescinded as the global grain situation reversed, with easing in supplies and weakness in prices. It is perhaps of greater import to realize that many of the steps taken on the import side in response to the world food crisis, mainly meant to end limits on imports, have remained. Thus, as worrying as it was to anyone committed to liberalized trade to see all of these actions taken to block normal exports, it might be concluded from the

lifting of import controls that the impact of the world food crisis on global trade was on balance quite positive.

In making that unusual, even strange, pronouncement, my list must begin with Brazil, a country that in watching what other nations were doing in response to rising concerns over food supply adequacy, made a forthright declaration — that it would not restrict exports of grains used as food as a way of curbing its domestic inflation. Instead, Brazil, alone among nations, implemented an increase of more than 11% in its domestic agricultural budget to a total above U.S.\$41 billion with the aim of increasing domestic crops as its way of containing price increases.

Argentina, which uses export taxes both to produce government revenues and to control exports, chose to tighten its rules regarding required registration of foreign sales. It also reduced the time allowed between registration and actual shipment. At the height of the food crisis, it suspended registrations except for wheat sales to Brazil.

Coincidentally, Australia's exporting was undergoing a domestic revolution at the time of the food crisis with the end of the Wheat Board's monopoly and the resulting battle for veto power over applications to export. After considerable internal debating, 15 firms were accredited to participate in the new bulk wheat export scheme. It is ironic that this domestic battle, although precipitated by the Wheat Board's handling of sales to Iraq, had little to do with the global food crisis.

In the case of China, that country sought to restrain exports by first halting rebates of the internal value-added tax on exports of wheat, wheat flour and other grains. The effect of ending rebates was then magnified by imposing export taxes at 20% for wheat and 25% for wheat flour.

India simply banned exports of wheat and wheat flour, as well as maize and non-basmati rice. The bans followed imposition of minimum export prices that the government raised frequently in the hope of keeping ahead of the market.

Pakistan banned private export sales of wheat flour to Afghanistan, its main destination, while allowing government-to-government sales that were subject to a 35% tax rate.

Russia also elected to use taxes as a way of limiting exports, beginning at 10% on shipments to all destinations, except for other countries in the Commonwealth of Independent States. This tax was gradually increased, reaching a peak of 40%, but no less than 105 euros per tonne. Restrictions were also put in place on exports to Belarus and Kazakhstan because duty-free wheat from Russia was being sold to other destinations through these C.I.S. member countries.

Kazakhstan's not unexpected role in this elusive trade coincided with that country banning exports of wheat and flour after the breakdown of a memorandum of understanding with grain exporters and flour millers that was meant to protect domestic supplies.

Ukraine was unique in its use of export quotas, a concept once popular in Washington and among international negotiators.

Nations imposing bans on wheat and other grains purportedly to safeguard domestic supplies included Cambodia, Egypt, Liberia, Malawi, Serbia, Tanzania, Vietnam and Zambia.

As noted earlier, a similar number of steps were taken by grain importers in response to the world food crisis. As expected, these mainly sought to make it less expensive and also easier to obtain import supplies. Many of these import-related moves occurred in countries that also had moved to limit exports. Also, any long-term easing stemming from these import actions hold out possible long-term positives.

Whereas outright bans were the most common steps taken to limit exports, the import changes largely centered on either sharply reducing or waiving duties that had been assessed on imports of wheat and wheat flour, as well as other grains. Countries taking this duty-reducing path included Brazil, Chile, China, Taipei, Egypt, Ghana, India, Indonesia, Mexico, Moldova, Morocco, Nigeria, Pakistan, Philippines, Serbia, South Korea, Turkey, Vietnam and Zimbabwe.

The European Union, whose Common Agricultural Policy has been a frequent cause of debate, reacted to the exceptional tightness in global grain supplies by suspending import duties on all cereals, except oats, buckwheat and millet. Before this move, the E.U. had reduced to zero import duties on bread-making wheat, durum, rye and sorghum. At the

same time, the Commission was empowered to reintroduce duties should export prices at ports fall below 180% of intervention prices. The Commission stepped in to declare that cereal import duties would continue to be suspended at least until June 30 of this year, but made no promises beyond that. I would hope this policy might continue.

Japan's reaction to the past year's food crisis was especially disappointing, particularly since it reversed that country's longstanding reliance on imports for 60% of its food consumption. While a surplus producer of rice, Japan since the end of World War II has imported 90% of its wheat needs and 100% of the feed grains required for livestock and poultry. Japan's first response to soaring international prices, which raised the cost of imports acquired by the government's Food Agency, was to raise resale prices to flour millers by 30%. In addition, the Food Agency was authorized to make two adjustments in prices during the year to achieve "closer correspondence between internal prices and world markets." As you might imagine, this created consternation among the country's millers and bakers who had become accustomed to unchanged Food Agency prices.

But these steps were not all. The Ministry of Agriculture more recently announced a program of generous payments to farmers to spur increased acreage of rice, wheat and soybeans. In the case of rice, farmers will be paid to switch to growing grain suited for feed use and flour, rather than traditional food. More wheat and soybean plantings will be sought.

“Our priority is on boosting Japanese reliance on supplies of domestically produced grains,” the Ministry said. “The country aims to become less dependent on overseas supplies to protect it from volatile international prices and to ensure long-term food security.”

This is language not heard from Japan in many years. It reminds us of how the previous U.S. embargoes on exports resulted in Japan spurring Argentina and Brazil, mainly by large direct investments in those countries to expand crop acreage, to much more important positions as surplus producers of soybeans for export. This latest Japanese preference for increasing domestic production could potentially have the greatest long-range impact on world trade in grains of any action prompted by the 2008 world food crisis.

The other importer-related reaction to the world food crisis worth noting is by Saudi Arabia, a kingdom of immense wealth in underground oil, yet where the desert imposes strict limits on food production. Several decades ago, in a period of exceptional Middle Eastern tension, the kingdom made the decision to become self-sufficient in wheat by building vast irrigation systems and paying prices for domestically-grown grain that were as much as six times world prices. This exceptionally expensive program worked so well that Saudi Arabia not only became self-sufficient in wheat, but amazingly was offering surplus grain for export. All of that changed dramatically near the turn of the 21<sup>st</sup> century when the kingdom announced the gradual reversal of this program by returning to reliance on

imports to supply wheat to the flour milling industry. At one time, Saudi Arabia was the world's leading flour importer. That changed when mills were built to utilize a domestic crop that no longer was being harvested.

Without making comparisons of wheat and crude oil prices, it probably goes without saying that Saudi Arabia, of all countries, felt little or no impact from the world food crisis. Indeed, it was probably the only country that could and did react in a manner that would suit a nation of vast wealth. It has raised domestic subsidies paid on imported grain and rice and has announced plans to establish a stockpile of up to 1 million tonnes of imported wheat coincident with scaling back domestic production. The state-controlled Grain Silos and Flour Mills Organization will manage this stockpile.

I've been asked to suggest ways that South Africa could best react to or maybe learn from this huge range of steps taken by other countries at a time when we all agree a world food crisis was looming. First, there's no question but that many exporting countries, faced with domestic supply problems, will not hesitate to stop exports to help domestic consumers without regard to damage being done to export customers. For a country like yours that relies in part on wheat imports, the answer I prefer is assuring that everything possible is done by millers and others in the wheat supply chain to raise your domestic crop in quality and quantity to meet the needs of your domestic market. The best backstop on imports is entering into supply arrangements that equally commit you to buy and

your chosen suppliers to export. Building domestic storage sufficient to prevent a shortfall is very expensive.

Yes, I prefer free and open trade, and yes, I am disappointed that the Doha Round negotiations have evidently come to naught.

In suggesting that you do everything possible to maximize the quality and dimensions of your domestic crop, let me tell you about an issue that has deeply bothered thinking people in grain-based foods in the United States. That is the loss of sizable wheat acreage to corn and soybeans. This major area shift was under way long before the ethanol issue raised its head, reflecting significant improvement in yields of those two crops as well as agronomic advances that made their production suited to areas that used to produce mainly, if not solely, wheat. Genetic modification accounts for this sudden expansion in planting of corn and soybeans. And it is the absence of genetic modification of wheat that explains why this crop is losing the yield derby to corn and beans.

Indeed, it might be said that the skyrocketing wheat prices of the past year were the way markets responded to this situation. With wheat yields still showing little improvement over the years, in contrast to the other grains, paying sharply higher prices poses the obvious answer to assuring adequate supply. Without delving too deeply into this issue, let me note that the lack of genetic modification of wheat largely is explained by the resistance of grain-based foods, in America as well as in Europe and in some parts of Africa, to the promise of this science on account of

fears of consumer reactions. Even if these objections were eased, wheat will not be able to catch up any time soon in its genetic gains. This means the industry will have to pay more to keep production in line with requirements. Otherwise, we will have assured a continued steady decline in wheat production.

Steps to maximize crop production are of huge importance to Africa. Many experts addressing global political and economic issues have centered on boosting food production in this continent as deserving topmost priority. Whether you in the future will be able to look to neighboring countries as potential supply sources is a subject that you are able to address better than anyone else. Suffice it to say that what happened in the past year to global trade as a result of the world food crisis may have signaled the importance of you looking in this direction.

Related to changing patterns of trade, production and consumption is the food versus fuel debate. I've already told you how the Bush administration in America rejected arguments for changes in ethanol policy as a way of reducing price and supply pressures. Other countries reacted differently, as evidenced by how some moved to curtail grain use to make fuel. It's much too early to speculate how the new Obama administration would have responded to some of the same pressures. But let me say that Mr. Obama has been an ardent advocate of ethanol. Determining whether that is a political or an economic stance will require the passage of time, but his appointment of Tom Vilsack, from Iowa, as

the new Secretary of Agriculture seems to point toward favoring ethanol production.

In the meantime, we need to consider this subject as a way of understanding what lies ahead in global grain markets. It doesn't take much examining to realize how that issue is only one — albeit an important one — among the many aspects of the likely solution to global energy problems. Indeed, more often than not when solutions are put forward, the issues that occupy the attention of food-fuel debaters are not even touched upon as being part of the likely solution. Similarly, the drawdown of crude oil supplies, forecasts of future shortages and the looming climate crisis have prompted stepped-up research to find in agriculture ways of replacing any number of products that now use petroleum as their basic ingredient.

This involves a huge range of products important to Africa. For instance, a leading tire company (Goodyear) and a leading food company (Danisco) are engaged in a collaboration aimed at finding an agriculturally-based replacement for isoprene, the petroleum-derived product that is essential to the manufacture of vehicle tires made of synthetic rubber. The aim, like many other similar research undertakings, is to have the tire industry become less dependent on oil-based products. Millions have been spent in this collaboration, and greatly increased spending has been budgeted, including having large-scale manufacturing under way by 2012.

Recently *Nature* magazine, a leading scientific publication, published its so-called “wedge” list of possible ways of introducing low-carbon energy production into the global economy as swiftly as possible. I stress that this approach requires staggeringly massive investments, which are believed necessary to avoid the global warming that will occur in the next 50 years absent these steps. Without endorsing that concept, let me simply note that this list includes concentrated solar thermal electricity generation; 700 new nuclear plants and replacement of 300 existing plants; 800 new coal-fired plants with all the carbon captured and permanently sequestered; huge expansion of photovoltaics; steps to assure efficient industry and residences; minimum vehicle efficiency of 60 miles per U.S. gallon; vehicle fuel from cellulosic biofuels, and 2,000 gigawatts of power generated by new windmills. A gigawatt is 1 billion watts.

This list is highly important for what it includes as well as what it omits.

To underscore the immensity of this undertaking *Nature* points to the goal of securing 800 gigawatts of new power from coal plants with carbon capture and storage. It notes that this capture and storage represent a flow of carbon dioxide into the ground equal to the current flow of oil out of the ground. It would require, by itself, the re-creation of the world’s entire oil delivery infrastructure.

And then there’s the cellulosic biofuels, which are often talked about as replacing ethanol. I need not emphasize how this change would

drastically shift grain flows in developed countries where ethanol plants have been built to supply a meaningful share of vehicle fuel. It is apparent that the advocates of this approach, like many other recommendations we note these days, assume that production of second generation biofuels, from cellulose, algae or whatever finally works, is a future certainty. The amazing thing here is the projection that following this path to solve the global climate and energy debate by replacing petroleum will require using a sixth — yes, 17 per cent — of global crop acreage for producing this non-grain raw material. Nothing is said specifically about the immensity of this particular concept, which, if you think about it, has proportions analogous to the sequestration of carbon dioxide from coal plants.

At the Bio International Convention held last June in California, discussions of cellulosic biofuels, while focusing on the problems and high cost of converting cellulose, also addressed other issues involving this approach. One that is especially striking is the immense handling, storage and transportation changes that would be required if cellulose-type products were being processed, as well as the prospect that in any process for converting cellulose into fuel a sizable amount will remain that is suitable only for burning as plant fuel. This is what happens when sugar and bagasse are processed. As Peter Meyer wrote in a recent column for one of our magazines, “The consistent cost advantages of corn-based ethanol are the utility and value of the feed being created as a by-product

of corn ethanol production.” Yes, as with millfeed in flour milling, the value of this by-product of corn ethanol production has a, maybe even the, central role in making the process economically sound.

While I believe that research aimed at extending the present brewing process to cellulose is properly focused on coming up with an efficient way of converting a wide range of stuff into alcohol, other areas — gaining value for the by-product and dealing with the massive volumes involved — merit emphasis. Indeed, precious little attention has been paid to the way corn ethanol production has quite literally transformed the business of country and subterminal grain elevators in America. It doesn't take much imagination to appreciate how the sudden embrace of cellulosic ingredients, in response to new technology and market prices, could cause a revolution in grain marketing, storage and transportation systems beyond anything that has happened in the past.

At the same time, we must not neglect the thermal method by which waste products, including cellulose, are heated in order to produce a synthetic gas, which then may be converted into a liquid fuel. The third alternative receiving serious study is making biofuels from algae. Experiments, including sizable algae ponds in Hawaii, have shown that certain types of algae produce substances that may be converted into fuels, using carbon dioxide as the feedstock. One company with access to Pacific Ocean waters has begun experimenting with moving container-size loads of algae for processing into biofuels.

The prospective changes promised, or should I say threatened, by cellulose cannot help but make me wonder if this isn't an opportunity for African agriculture? If plans are being studied to ship algae across oceans as feedstock, why can't the cellulose-growing potential of Africa be realized in much the same way that Brazil has become a fuel-making powerhouse by using cane sugar as its raw material?

Research on second generation biofuels has been under way for about 40 years, although its history is marked by many ups and downs in response to oil prices. In examining these opportunities, we must not overlook the possibilities of wind power to generate electricity and of electricity itself as the ultimate fuel for motor vehicles. It is only recently that anyone would seriously position electricity as a potential competitor of liquid fuel to power automobiles and other over-the-road vehicles.

Yes, of course, grain-based ethanol has a considerable advantage because of the accepted technology for making this fuel and its similarity to and compatibility with gasoline. The point I would make, though, is that the fray in which ethanol has been centered for the past year or longer might turn out to be of much less consequence than the outcome of efforts across the entire mammoth search for new forms of energy.

Let me close by declaring that agriculture, and this includes agriculture in Africa, ought to have a central position in the search for new forms of energy. Achieving that in balance with food requirements is both

a serious challenge and a fantastic opportunity that merit our most earnest attention.

Thank you.