

SHADOWS YET TO COME

Rice is a story about East and West. There is an old saying from the Bible (Psalm 103:12) “as far as the East is from the West.” That is no longer necessarily the case. East and West are starting to come together now. It is inevitable. For those who want a deeper understanding of how that is happening and how that will change the world, read on. And to those in the know, the key to Asia is rice.

We face two visions of the future: one of despair and death, or one of hope and prosperity. Likewise, there are two scenarios for Asia’s future, and indeed, the future of millions of people is at stake.

A VISION OF DESPAIR, A VISION OF HOPE

As we confront the momentous social changes coming to Asia, humanity holds the power to turn despair into hope. Much of that power lies in the mindset of those who guide market development and farm support programs. The mindset of many is that those farmers left to farm in the years ahead will remain in debt, in the dark, uneducated, and incapable of managing wealth. In fact, the farmer could face virtual extinction, and when we are without farmers, we are without food.

What those farmers need is not a regime to keep prices low or high. They need the ability to run their farms like a business, attuned to the acreage they grow, and attuned to the markets as the flow of information and technology accelerates and the values of global commodities shift continually up and down.

As providers of food, twenty-first-century farmers need the freedom to grow what makes them money, what the supermarkets and restaurants are telling them to grow. Governments need to give them that freedom and stop rigging their rice price.

Even today, a huge migration has begun from the rice fields to the cities. What will become of those who leave, and of those who remain on the farms? In short, those who leave must obtain the money, education, and skills to take up new disciplines. And those who remain on the farm must become savvy business people who are prosperous enough to feed the cities. That will require the full array of farm credit, technology, market price discovery, and communications that now exist or have not yet even been invented. The farmer will need those tools to manage the weather and markets, deal with climate change, and grow rice in sufficient abundance. The agriculture and open grain markets of Arkansas, the delivery area for American rice futures, needs to migrate its way of doing grain business to the vast rice fields of Asia. There is no other way to a better future for all.

We have the potential for prosperity. We also face the potential of very low rural incomes if the feudal agricultural system continues, centrally controlled and top down, with uneducated and disconnected farmers. In time, they will be unable to meet demand. With poor communication and lack of entrepreneurial initiative, the distribution channels will clog up and continue to show major storage

losses. The countryside will be unable to feed the cities. The result: urban hunger, rural poverty. This situation will destabilize Asia and thereby the world.

This, then, is the story of the world rice market and its farmers that have farmed rice in China for many thousands of years. It is also about the massive change that must come to the world in the next 15 years, in the blink of an eye. It is the tale of how the rice price was discovered for eons, how it has been established for the last 40–60 years and where the rice market could hopefully end up in the next two decades.

How does the future look in, say, 2030? If one scenario is despair and the other is prosperity, what will be the nature of things yet to come? What would Father Time want to show us about our lives then?

IF OUR PATH REMAINS UNALTERED ...

If the mindset of farm programs maintains the status quo, I see Asian farmers becoming increasingly destitute. I see small tenured operations in which uneducated laborers lack the income and an understanding of marketing and money management. They will remain peasants or part-time workers, unable to respond to the demands of modern food markets, with a decreasing supply of available land and the water so crucial to the crop. They will be wards of the state, not businesspersons.

Though nations dream of self-sufficiency in rice, they cannot have that without self-sufficiency in unpolluted water supply and toxic-free land plus adequate logistics. Self-sufficiency cannot come

as an extension of a feudal agricultural system of small land-tenured plots run by farmers who are outside the technological and educational loop of the rest of the world. Whether a nation keeps prices low or high, it will lose that coveted self-sufficiency. As a result, people must eat less and starve, or else import rice or buy grain hectares abroad to fill the gap.

Migration from Asian farms is inevitable. It stands to be the largest and swiftest mass migration in human history.

As a point of comparison, the migration of African Americans from the rural south to other regions in the USA has been estimated from 1910 through 1970 as less than 7 million persons. In China, the scale of the mass migration that lies ahead is nearly unimaginable. Moreover, unlike the U.S. migration, it is a planned migration.

Such a migration, of course, comes with huge social change. Governments may want to slow down or speed up that migration. Without enough jobs in the city to go around, unemployment may swell amid social turmoil. Some farm programs, therefore, are designed to keep people on the farm as long as possible. “Self-sufficiency” is really a code word in some cases for keeping people down on the farm.

In 2012, about half the Asian population was rural. In 35 years, according to projections, it could be 15 percent or less. It could be more than that, or less, but we could soon be seeing at least a 20 to 30 percent decline in rural populations in the two largest countries in the world, India and China. Of the 2-plus billion people in these two countries, we are talking about a migration of several hundred million. The historical urbanization in the West pales in comparison.

It is already clear that China and India now watch each other closely. China has been a leader in the East in freeing up society to do business in the cities. When China changed, the Soviet Union began to change. Now China must lead the transformation of farming into a business venture, in which the farmer profits and the farmer can buy and sell directly to consumers of rice. In addition, the farmer should have some ownership of the land he tills. Farmland should follow the cities and be privatized to create wealth. This outcome will challenge China's basic beliefs about agriculture and the collective and land ownership. As China awakens its rural sector to privatization, Asia will change. As Asia changes, the world will change. Napoleon was right, but it is the rice farmer who must awake first and shake China and then the world. Rice through China could shake the world.

India and China are urbanizing; the cities are receiving people from the farms. Currently, people are finding the work and the rewards much better in the cities, and so they will continue to migrate. They don't miss the hard work and indentured poverty on the farms.

People will go to where the jobs are. When profits and prosperity decline in the rural areas, people go elsewhere to find employment and opportunity. This has happened in the West, and it's now happening in Asia. Once relocated to the city, the farmers are often viewed as unable to take care of themselves. They are not seen as business managers, after all, and so they are considered incapable and largely not trainable. They will be looked upon, basically, as displaced serfs, poor feudal peasants without land or wealth, who now must live off the state. Unable to become business managers, they will despair, becoming impoverished and unemployed.

As the exodus accelerates in the decades ahead and things remain unchanged, farmers may increasingly slip in productivity. The rural

sector could become a farm museum of tiny land plots, fixed in time. China could become a Japan on a gigantic scale. Landless migrants will increasingly demand that the state take care of them. As optimism wanes that rural areas can provide the hope of prosperity, farms will start to be abandoned. As the farmers grow old, no one will want to replace them.

Those who remain on the farm will be unable to make enough food. They will age, with their sons and daughters long gone. A whole generation of farmers is being lost for lack of mentoring. Agricultural enterprise requires the passing on of skills, generation to generation. The learned skills of farming over many years are in danger of disappearing.

A BRIGHTER SCENARIO

The solution lies in altering this status quo mindset and developing a new and hopeful vision. Imagine a world in which rice prices move the way that wheat prices do, internationally, with forward markets, with the benefits of price discovery, and transparency throughout the marketing chain. There would then be one world rice price, not many, as it currently the case. There would be one price, with discounts and premiums for location and quality. The prices would flow freely and without borders like the rains and rivers, which provide the water to grow the rice.

Asia and the rest of agricultural world are at a crossroads.

Is the farmer a prosperous supplier who can manage money and deliver product to a food marketing chain successfully and efficiently, without large losses? Will he connect freely with the markets, pricing

his crop locally, relative to supply and demand? Will he be able to change what he grows rapidly in tandem with market conditions? The answer could be yes, but the top-down market management that is common in the Asian rice industry first must change.

Farm management, instead, has to be from the bottom up, not dictated from above with prices set out of some central command center. It has to be from the man or woman in the field who can hire and fire people, doing the business of farming and producing the stuff. No other farm market is quite like the rice market in which the prices are set firmly from the top down. Such a system gives farmers an unclear or stale price signal.

As a sophisticated businessperson, the farmer will take advantage of technology, using local forward markets to price his rice. He will be linked in on a global scale to markets throughout the world that are involved in pricing his commodity. He will be receiving weather information and price information over a smartphone or an iPad on his farm. He will be able to respond as conditions change, in a way that makes sense. He'll have a clear view of the market, straight through his marketing chain to the consumer. Money will be made in the transparent, digital light, not the dark. He will have enough money to buy a digital book, learn new ways to farm and make social connections on the Internet.

In the United States today, just about 2 percent of the population work directly on the farms, but 46 million people—about 14 percent of the population—receive food stamps. The U.S. food stamp program, estimated at \$80 billion per year in transfer payments, goes directly to the wallets of the people who need the subsidy so that they might eat better. Such should be the system in Asia. Cash goes to the

farmer, who feeds us, and cash goes to the poor who cannot afford high grain prices. And as for grain prices, let them freely trade.

The unintentional waste in the less developed world is in the logistics of moving food from the field to the cities. By contrast, in highly developed and highly prosperous environments, the waste is intentional and tied to people's tastes. Up to 30 percent of all vegetables in the UK are thrown down in the field and never used because of urban dweller's demands for quality. Rightly or wrongly, waste in the West is by choice, not by chance and poor logistics.

As the cost of water increases, we will have to find new ways of dealing with the food and water situation. One way could be to actually move some farming into the cities. As long as water is given away nearly for free, you don't worry about the waste of food. Water and food are joined at the hip.

There is a pessimistic mindset of many in Asia that the farmer lacks the education and resources to ever succeed as a farm manager without top-down controls on the price he receives and the land he farms.

In its current incarnation in Asia, the state-mandated rice prices give us no assurance that rice farmers will attract the means to adapt to the changing needs of urban populations. Asia should consider a slightly different mindset. A vision of despair could become one of hope and prosperity.

WHY I CARE SO MUCH ABOUT RICE

When I told my rice friends I was writing something on rice, they asked, "What is it about? Why are you writing it?" I have written

down what I know about rice for one simple reason: some of those who know about rice are not telling and those who tell do not know.

I do not know everything about rice; no one knows everything about anything. But I know more than many who write about rice. Rice is more than statistics on a piece of paper. It is an ancient Asian culture that is many thousands of years in the making. Rice was, most likely, discovered and first cultivated in China.

In the end, I want to share my love for rice and the farmers who grow it and for those who mill, store, and sell the finished product. I want to share with you what I have learned from three decades in the rice marketing chain, a mere nanosecond in the history of rice. Rice is a humbling subject to undertake. The grain is small but its impact is monolithic on the history of humanity.

I have helped build rice markets. I have started rice businesses. I have traded rice for profits and risk control. Now I advise CEOs of major rice concerns, as well as governments, regulators, and exchanges.

You do not have to know how to spell the word *rice* or *rice farmer* to be concerned about the fate of rice and its role in world markets. And you should be concerned, very concerned.

I do not make many forecasts about the price of rice or the rice industry here, although that is my profession as an agricultural economist.

I will make one prediction, and that is that Asian agriculture, long underfinanced and overlooked by the money people in the world's capitals, will come into its own in the next decade and the rest of the twenty-first century. It is the great overlooked opportunity in Asia.

Agriculture is largely an untapped opportunity in Asia for digital services. I focus on the marketing side of rice farming, but that is only the tip of the digital "rice berg." On the far side of the Pacific from the USA is a blue ocean of untapped possibilities, new networks and trade associations among farmers, as well as the technological specter of urban farming as water costs and food safety concerns escalate.

Agriculture is largely physical in Asia and indeed elsewhere now, not yet very virtual or digital, but all that must change. Farming must change from feudal to virtual in the years ahead. Individuals cannot set rice policy but they can provide services to lighten the farmer's load. Power must come to the rural sector. In the case of India, for example, solar power may not be changing heavy industry, but it is bringing digital light to rural communities that have shut down in the dark in the past and can now stay open during the night. A well-charged iPad and a solar-powered overhead light can transform the rural world. China is working on solar power systems that would be self-sustaining and profitable by 2020.

Like travel, real estate, publishing, banking, medicine, and entertainment, the power of technologies and the World Wide Web will transform all the rice farms of Asia and all the 3 billion people eating rice from those millions of farms.

I challenge each reader to ask questions about how he or she can make a better living and live a more fulfilling life by helping rice farmers in Asia make a better living in the digital light.

Darkness has no speed and holds up transformative change. Light speeds us toward the digital future, now benefiting about half the earth and its peoples. Rice still lives on the dark side of our digital planet.

Once again, rice moves nations. It brings down regimes. It feeds 3 billion people, and yet it is produced on a total acreage about the size of France. It's the largest single employer in the world, bigger than Wal-Mart or the entire U.S. government.

The world's largest rice producer, by far, is China. Next largest is India, and then Indonesia and Bangladesh. By contrast, the United States produces less than 2 percent of the world's rice but ships 9 percent of world's rice trade. Half its rice is sent abroad. The U.S. grain markets feed the world, and all that has been learned from U.S. grain markets has made its way into the tiny U.S. rice market and the farmers that grow it. I have travelled extensively in Asia, but the U.S. rice market is my backyard. In the USA, rice is a crop grown to generate money, not feed the family. Rice in the West is largely a cash crop; in Asia, it is largely a subsistence crop and still a way of life.

China not only is the world's largest rice producer, but it also is the largest rice consumer. It is by far the largest food market in the world. Its food demand continues to outpace its domestic production, creating a market opportunity for exporting countries, such as the United States. In 2012, it was the top export destination for U.S. agricultural products at \$26 billion, up from a mere \$2.1 billion in 2002. The pending acquisition by the Hong Kong-based Shuanghui International Holdings, Ltd. of Smithfield Foods, Inc., the largest U.S. pork producer, shows the desire to not merely buy food from the West but also to acquire the marketing and quality-assurance skills of the West for the benefit of Chinese citizens.

The pork industry also began in China millennia ago, when some hungry person ate some unfortunate hog that roasted in a fire. So the story goes. China is still today a pork and rice culture, and that culture has spread across the Pacific Rim and its islands, just as the

wheat culture moved out from the Mesopotamian Valley, both east and west therefrom. Through the pork market, China has become a major player in the corn market. In India, it is the humble chicken that is changing diets there, and grain consumption.

Rice represents nearly half the food expense of the poorest people in the developing world, and 20 percent of total household spending goes to rice, according to the International Rice Research Institute (IRRI). U.S. households spend only 6 percent of their incomes on groceries, a report from Euromonitor International indicates. Many of Asia's poor try to survive on an income of less than two dollars a day. They lack food, clothing, and shelter. If the price of food, principally rice, rises, then they immediately have less money for other purposes.

Somehow, the price of rice and the availability of rice must be separated for these Asian poor and separated as well from the marketing needs of the rice farmer.

PART ONE:

TRADE ROUTE TO A BETTER FUTURE

CHAPTER 1

RICE FARMER AS BUSINESS PERSON

We must put the rice farmer first, for, without farmers, the cities will starve. In China, farmers are nice guys, they earn a mere pittance for their labor, they come in last, the last to profit from land deals, the last to know about the rice price, and the first to toil from dawn to dusk to feed the mushrooming cities. Remember, no farmers, no food.

I envision a world in which we change the way that we discover the price of rice and the way farmland trades for the benefit and profit of the farmer, not just the broker or corrupt government officials who add no value to the food chain. We need to assure the long-term

wellbeing of Asia's rice farms as they shrink in number by 30 to 70 percent in the next 15 years.

In terms of farm numbers, you cannot even begin to compare the size of the Asian rice industry with the U.S. farming sector. Our sources indicate that there are between 144 to 200 million rice farms. Notice the variance around this number amounts to about 60 million rice farms. By comparison, the U.S. Department of Agriculture estimates that in the USA there are about 2.2 million farms in total with expenses of more than \$100,000. Of those farms in the USA, individuals and families, not big corporations, own 85 percent. Also the U.S. farm operator is getting older. The percent of U.S. farmers 65 and older has increased almost 10 percent from 1969 to 2007, and the trend is your friend. Where do you hear about the “graying” of U.S. agriculture?

There are probably more folks on rice farms in Asia than the 313 million people living in the USA, perhaps three times as much. This gives you some idea of the scale of what I am talking about here.

The sheer magnitude of that number of rice farms—a statistic from the IRRI, which is dedicated to improving the wellbeing of poor rice farmers and consumers worldwide—can be difficult to grasp. The numerical and social scale of rice farming exceeds all other occupations. If rice farming is not a world-shaker, no profession is.

And the way that rice trades, in today's world, is this: for the most part, it does not.

Only about 8 percent of the world's total rice market is bought and sold internationally. In the few areas where it is exported, rice is a minor part of people's diet. That includes countries such as Pakistan, the United States, Paraguay, Uruguay, Argentina, and Australia. It's a

short list of rice export players. Rice is a very big part of the domestic economy of other large exporters such as Egypt, Brazil, Myanmar, Laos, Cambodia, Thailand, Vietnam, China, and India. The thinness of the world rice trade is a side result of the obsessive promotion by governments of rice self-sufficiency at any cost. No other major grain aside from corn (12–15 percent of production) is so thinly traded as rice. Wheat trades 23 percent of its production and soybeans nearly 40 percent.

Rice is bought and sold in a world with a unique mindset.

When a country is wedded to rice as essential to the people's diet, the government often imposes strict controls to orchestrate the price. In 2008, when rice prices tripled, there was plenty of rice around. It was panicking governments that banned rice trading. Rice currently does not trade freely inside countries that rely upon it as subsistence crop for the population. Largely, the government mandates the price, either directly through price supports, or through input subsidies, or both. I argue that, nonetheless, such a mindset should change.

In countries where governments perceive rice to be critical to the people's welfare, the governments take control of the marketing chain. Many oppose free trading, and especially rice futures. You can see this in the demise of such rice futures markets in Thailand, India, and Japan, and the dormancy of the rice futures market in China at Zhengzhou, due to high and rigid price supports. Everyone watches the U.S. rice futures price in Chicago, but most would not trade it with a 10-foot pole.

My vision is to let the rice market trade. I see a world in which the farmer can respond to price signals and governments allow acreage to move among various commodities when possible, as occurs in the

West and to some extent in India. I see the farmer as an entrepreneur, assessing the risk and profitability of what he does, not merely just producing it for government buying agencies that let the rice spoil through neglect and poor storage.

LET THE RICE MARKET TRADE

I advocate, in other words, adopting in the East a few of the market mechanisms and approaches familiar in the West. We should adopt the kind of free and open rice markets that existed, in fact, for centuries in Thailand and Japan and around the globe before World War II.

Before the war, the rice market was open to a great degree. Governments simply lacked the money to subsidize and control prices of rice, energy, and water. Of course, in those days, most of the crops were grown with animal and human muscle power. But with the coming of the war and state control, countries in the Far East took over the control of the rice market. As national treasuries and income developed, they began using some of their resources to control the rice price to keep it affordable to the poor.

The farmer became a vassal of the state, a feudal serf, more or less. I strongly believe that nations can step back from price controls and deal with their poor rice eaters differently so that they can free the farmers to become prosperous businesspersons. In this century, if the rural population goes from 50 to 10 or 20 percent, the rice farm and the markets it sells into must change drastically. Asian rice must eventually trade like Arkansas rice, Iowa corn, or wheat from the Black Sea. Asia counts with computers now, not abaci. Yet it still has abacus-like rice price mechanisms.

An extreme example of price control was in China, where the rice price didn't change from year to year for decades. The price was mandated as a government guarantee to the rice farmer of some modest level of income. It was a hermetically sealed market, internal to itself. Its welfare state became known then as the Iron Rice Bowl. When I came into the rice market in 1981, the farm price was close to \$1 per hundredweight. Now it is closer to \$20 per hundredweight, a price increase of about 2,000 percent in three decades. In that same interim, gold has risen from \$500 to \$1,500 per ounce, an increase of 300 percent. Rice, the white gold, inside China has been gaining on gold, the yellow metal in the last three decades.

In recent years, China has been increasing the rice price support, trying to create a bit more wealth in the countryside and to keep the farmer growing rice. The goal is to maintain self-sufficiency without depending on other nations for rice, or for wheat. China does not trust the world market, especially the world rice market. Many of today's leaders knew about abject hunger back in the 1950s in a way that the West has not known for several generations. They want to be sure that they can produce what they need internally. To a large extent, it's the fundamental fear of hunger and want that steers food programs in Asia.

China's price controls create a vacuum: The world price of rice is 40 to 50 percent lower. Nevertheless, it now imports more and more rice and other grains. But whether the price rises or falls, I believe, is not the point. The point is to let the farmers determine what to grow and how to grow it, and to not orchestrate the price or what is grown and where.

If rice were allowed to trade freely, it would be the largest market in forward grain prices on this planet. Of that I am totally certain.

In Asia, rice and gold are the two favorite commodities to trade. Gold trades; it is forbidden to trade rice. I hope you are beginning to understand why. As is the case of water, rice trades the way politicians would wish all things to trade: tranquilly.

LET THE MARKET TRADE

Price supports bring more money to the farmers, but the goal of national self-sufficiency is elusive. Consider the case of Japan, which has increased its rice prices dramatically over the last few decades and yet, nonetheless, is not at all self-sufficient in food, less than 45 percent self-sufficient. You could argue that the higher the price is set, the more a country risks a loss of self-sufficiency. The farmer doesn't think about the market, and the resulting inefficiencies create problems that must be faced in the future.

Whether prices are set high or low, the intervention distorts the market. The farmer cannot become professional and business-like, which, in today's world, is what agriculture desperately needs. Even after 10 years of rising grain production, China is starting to lose control and is likely to import more and more and appears to be following in the footsteps of Japanese farm price supports. Rigid prices of \$1 or \$20 turn farms into food museums.

THE MAGIC OF THE GRAIN MARKETING AND MERCHANDISING CHAIN

Here is how grain markets trade in Arkansas, the largest rice-producing state in the Union.

In between the field and the city in the United States there is a merchandising business that makes money by arbitraging between the forward markets and the cash or spot markets. A lot of information is available and transparent for all to see, whether they're farmers, merchants, or large food corporations.

In the fall, when the crop comes in, the price normally falls, only to rise again when just a little of the crop is left to sell. That is the essence of the seasonality problem, which is the problem that a forward market helps to solve. It can serve as the glue to hold a market together. And that's the merchandising function that needs to be propagated and moved out into Asia and the world rice market.

To grow another 50 or 100 million metric tons of grain is not necessarily a good thing, not if it spoils from logistical inefficiencies. The infrastructure must be in place to handle a massive increase in production—that is, the storage capacity and the transportation network to move the product to the population.

You don't necessarily solve hunger by increasing production, strange as it sounds. You solve hunger by increasing production and enhancing the market structure to manage and efficiently deliver that production every day, every year. That's essential to creating a healthier grain market, as in Brazil and the United States. For example, in China in 2013, some of the 30.8 million MT of reserve corn may not be suitable for feed or processing. Stored in the kernel form, a lot of it has high moisture and is moldy. Unless someone makes money by storing grain professionally, the grain quality suffers. It takes a focused and business mindset to grow, store, and merchandise grain.

This is far from a radical concept. I'm arguing for extending the concept of grain markets that work in the West. In the last 40

years, the financial world has extended open, transparent markets to gold, to currencies, and to government debt—and they’ve not turned back—and more recently, to heating oil, crude oil, natural gas, iron ore, and steel. Slowly, one by one, these global markets that were supposed to be “too important to trade” are being traded.

A freer market price allows signals to flow between consumer and producer about what to provide with scarce resources in a world of climate change. We don’t have unlimited water in this world to grow things. The market’s signals allow the adjustments, either painful or beneficial, that are needed now based on the future that people anticipate. This is a simple concept, but the world changes more on simple and mundane ideas than on the magnificent and complex ones.

Our company, Firstgrain.com, proposed in Singapore in 2012 the creation of a world milled-rice futures contract, based on a blend of rice origins. Such a rice price index might even help form a merchandising function for strategic rice buffer stocks in Asia. The idea of buffer stocks has remained elusive even after years of discussion. No one wants to step out and do it, because there is no money in doing it. Making money is the magic that leads to action in the grain markets.

Merchants and investors could handle those buffer stocks and price them and take care of the cost of inventorying them without burden to the participating countries. A forward market, or perhaps an over-the-counter market that prices off a rice price index, could become a world price benchmark. An analogy would be Chicago wheat futures against which global wheat markets price themselves. The analogy in energy is West Texas crude, which is priced in New York City. Several markets currently have such a world price

benchmark: cocoa, coffee, sugar, and soybeans, to name a few, but not rice, yet.

I visualize several local paddy or rice exchanges to price domestic rice production and a tradable rice index or over-the-counter market, perhaps located in Singapore, that prices out the indexed value of milled rice exports from Asia and perhaps the Americas.

MERCHANDISING AND PROSPERITY

The merchandising function is absolutely critical to the success of an agricultural system, but it is little appreciated or understood. It is a technical idea, like options on stocks or commodity futures. You do not get doctorates in grain merchandising; you just make money. Yet, it is the cement to a grain system that does not spoil millions of metric tons of grain every year, as is now happening both in India and China. In fact, the merchandising function is what has created a lot of the farm prosperity in the United States in the last 150 years. It's technical and dull and it requires education and marketing discipline, and it requires understanding between the government regulators, lenders, the producer, and the merchant. It is the everyday miracle that moves grain from field to grocery store in a timely and efficient manner.

In the USA, less than 10 percent of all farmers use the commodity exchanges directly, but they go to merchants who become like merchant bankers for the local farming community by arbitraging between cash and futures and moving the commodity through the distribution chain during the year. The merchant deals with the margin calls and price volatility in most cases.

When farmers get a forward market and a cash market in merchant and exchange warehouse receipts, they get a much deeper understanding of the marketplace that allows them to look at when and how they should sell their commodity. A professional farmer thinks like a grain merchandiser.

The American model is to set the poor aside and give them food through funds transfer rather than in kind, letting the farmer, the merchant, and the grain company buy and sell the market and grow what needs to be grown to fulfill the demand. It requires an education of anywhere from six months to several years to become an effective grain merchant or even a farmer who fully understands this marketing principle.

From a merchant point of view, a farmer is someone who owns a crop and must sell that crop as best he can at a profit or less of a loss during the year. Until a farmer understands that he's doing that and that there are tools available to him to merchandise that crop, so to speak, he becomes a huge gambler, or the state becomes a gambler if it fixes the price on his behalf as in China or subsidizes grain insurance premiums as in the USA.

The forward markets are basically voluntary price and crop insurance. When the possibility of profit exists, the farmer needs to seize on that and take advantage of it through a marketing plan. Chance favors the farmer who is prepared to take market action 365 days a year.

I tell my rice farmer customers to practice market gratitude. They need to be grateful for the prices they have, and the gratitude is the act of selling some of their commodity throughout the year at

different times. They are able to take that marketing and decide what they plant in the coming seasons.

In California, farmers have many different crops they can produce. In parts of Asia, they can only grow rice or maybe something similar to that. Again, it gets back to what the water is worth and who will pay for that agriculture. Rice, in part, salvages land not suitable for other crops, which is part of its miracle.

What I'm advocating is not so much one particular route to agricultural success, but that every country start thinking about its farmers as people with a business opportunity. The mindset of Asian rice programs must answer the question of what the future holds. We can only watch as spectators as this story unfolds. We all must hope for a good outcome, a professional rice farmer in Asia.

RICE MARKETING BUILDS A FARM'S PROFITABILITY

What we need to do is create rice marketers out of farmer producers. In the rice-growing areas of the USA, young people just out of college understand the economics of market risk management. A farmer can't just grow a crop. He must become a rice economist. He has to know demand and supply and the relationship of his local price to the terminal price to merchandise and make a profit with his crop. He needs to locate his selling within the marketing year, just as he now focuses on micromanaging his field inputs with GPS devices and a smartphone.

I visited the home of one of my farmer customers in North Arkansas. I was admiring his beautiful home on the edge of a golf

course. He said, “Milo, rice production did not buy this home; rice marketing did.”

I tell every one of my farmers they should take a course in grain merchandising and think like a grain buyer, because it is the merchant and the buyer who come into the market with a plan each year. The farmer is often too emotional in his selling; he lacks a plan and fears he will sell too cheaply, and he then sells too late or too early in each crop cycle.

You need to have a plan in any financial endeavor. Any business must have a plan. Good planning does not insulate businesses from grief, pain, and bankruptcy, but it does increase the likelihood that they will succeed. Any business has to move ahead, accept new technology, and think outside the box.

Let me recommend the University of Arkansas grain merchandising courses as a way, globally, to get online education in these merchandising principles. This program is currently under the guidance of Dr. A. McKenzie, Agricultural Economist University of Arkansas, *Price Risk Management, Futures Markets*. You can find the link for this course in our appendix. It’s a way that farmers worldwide and their suppliers of services can advance from a nice idea to actually getting a grain education. The course is not cheap, but you also get exactly what you pay for something. Too many expect everything for free.

Chance favors the prepared farmer who gets down to business and pays to learn how to do it right.

White Commercial (www.whitecommercial.com), a business that trains people to become grain merchandisers and a strong financial supporter of the University of Arkansas merchandising school, does want to change the way in which the world prices grains

for the benefit of small rural merchant businesses and their farmers. They are my kind of people. I want to do that for rice across the globe, but they want to do it for all grains in the USA and Canada. Many of the large and international rice merchandising groups now put their new recruits through the White Commercial grain marketing courses here in the USA and at the University of Arkansas.

Online merchandising education is the single cheapest investment with the greatest payoff Asia can make to bring its domestic rice marketing chains into the twenty-first-century of agriculture.

Anyone buying or selling grain anywhere should adopt the discipline of a grain merchandiser and take the time to learn how a merchant and a grain buyer thinks and acts. A good seller appreciates how his buyer eyes the rice market. The rice buyer is his customer, and it stands to reason a good seller will understand and satisfy his customer every day.

Either you are a speculator or you are a merchant in your buying or selling activities. There is no third category of risk management in freely traded grain markets. When a farmer sells what he has grown, he needs to learn to plan his sales as a professional buyer plans his annual spend on a commodity—that is, he must focus on value and net profits. Better to take a little profit than larger losses and increased debt.

STRENGTH IN NUMBERS

I'm not saying that all farmers need to have a master's degree in agricultural economics. Small-size farm operations in Asia most likely will band together in small local networks in which they all can

benefit from their shared knowledge, and let someone specialize in merchandising what is produced, hedging it, and finding markets over the Internet for that production. Cooperative marketing allows owners of small land parcels to band together for a marketing edge. I do not mean collectives and village cadres that steal the land from the farmer to profit by selling to developers. I mean voluntary trade associations to profit the farmer, not the land speculator. As Alexis de Tocqueville pointed out two centuries ago, the genius of the United States is not its big government or corporations but its small and flexible associations and groups bent on mutual benefit. He noted at the time that there was nothing equivalent to this in the Europe of his day.

Among the people in those networks will be someone savvy who understands how to price rice and how to farm the markets, so to speak, and who knows price relationships and buyers active in the region, the valley, or along the local rivers. Equipped with a smartphone or an iPad, an individual or marketing team will be on call 24/7, trading the crop just as they do in the big grain companies. A smartphone or a tablet PC now allows an active producer or his marketing representative to carry marketing opportunities nearly anywhere he goes.