



*International Food and Agribusiness Management Review
Volume 12, Issue 2, 2009*

Global Supply Chain An Executive Interview with Mary Shelman ¹

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Introduction

Mary Shelman discusses forces driving higher food prices and some of the changes which are impacting the global food supply chain. Shelman coordinates Harvard Business School's premier Agribusiness Seminar attended annually by more than 200 CEOs and top managers from global firms. She also organizes and teaches similar programs in Europe, Latin America and Asia. Her research focuses on the forces shaping global agribusiness. Her experience bridges academia, as an author and teacher of dozens of case studies on strategic change and challenges in global agribusiness firms, with industry experience.

This podcast can be seen with Realplayer on IAMA's website at:
http://www.ifama.org/dispatch.asp?page=executive_interviews_2008

¹ Mary Shelman served as Chairman of the Board of RiceTec, Inc., a fully integrated agribusiness venture owned by the Prince of Liechtenstein, and has served on boards of various international companies and industry associations including IAMA. After receiving a BS in Chemical Engineering with High Distinction from the University of Kentucky, she achieved an MBA with Distinction from the Harvard Business School and was awarded a Dean's Doctoral Fellowship for research in economics and marketing. Ms. Shelman can be contacted at: mshelman@hbs.edu

^① Doug Jose is the host of the Market Journal, a weekly televised program on agriculture produced by the University of Nebraska-Lincoln. This interview was conducted during the 18th Annual World Forum and Symposium in Monterey, California, June 18, 2008. Doug Jose can be contacted at: hjose1@unl.edu

It's a pleasure to have as my guest Mary Shelman who is director of the Harvard Business School Agribusiness Program. Harvard has been involved in agribusiness for some time and you did start with this concept of supply chains. Tell us a little bit about that and how that relates to the total picture of agriculture.

Shelman: A lot of people are surprised when they hear that Harvard Business School has an agribusiness program. Boston is not exactly a hot bed of agricultural activity. But the very term “agribusiness” was created by two HBS professors back in the 1950s: Ray Goldberg, who is known throughout the world for his tremendous contribution to the field, and John Davis, a former Assistant Secretary of Agriculture. They coined the term *agribusiness* to describe the flow of goods from the farm all the way to the consumer. In 1958, they published a book called *A Concept of Agribusiness* which became the seminal work in the field. Professor Goldberg went on to write hundreds of cases on agribusiness firms and to teach thousands of executives, and he is still writing and teaching. Ray was also one of the founders of IAMA.

Goldberg and Davis used a “commodity system approach” to look at the supply chain and that is something that we still use today. It is a very important way to think about where value is created within the chain, where value is captured across the chain and how the individual players in that chain react to each other. In today’s complicated environment, the framework takes into account government policies, resource constraints, consumer demand factors and a lot of different issues. It is still very powerful.

Let's jump ahead to today and talk about what is happening related to that. One of the things is the increasing demand for food around the world which is in part responsible for the prices that we have today. On the other side is the productivity of agriculture. In the work that you have done, in the case studies you put together, how does that worked out?

Shelman: It’s a very interesting time. My father was a farmer equipment dealer and also a farmer, so I have been involved in agriculture all my life. What we are seeing reminds me of the 1970s when there was a big run up in agricultural prices built on demand coming out of the Soviet Union. Producers, spurred on by aggressive lenders, bought more land and equipment—all high priced. Then the embargo was put in place and commodity prices collapsed. Many farmers went out of business and many rural communities were destroyed. So one of the questions that we ask today is whether the current run up in prices will mirror what happened in the 1970s. Is this a bubble that will come apart, or is there a fundamental change? Looking around the world, I see a number of factors that are driving up prices in the short term: biofuels, weather shocks, high oil prices, speculation. However, in the long term demand itself is permanently moving up, spurred by rising populations and incomes in the Asian countries, as well as in Brazil and other emerging

economies. More people will be eating protein-based diets that are less efficient in terms of the resources required to produce a calorie for human consumption. And if you look at the other side of that equation—supply—we are beginning to see a gap. Historically, the majority of investments in ag research were directed towards improvements in productivity. Today, there is a greater emphasis on “luxury” aspects: resource efficiency, environmental factors, efficient water use, functional foods and other value-added attributes. Increases in basic yields are not keeping up with increases in demand. In the long term, the way I see it, prices will never go back to the level of two-dollar [per bushel] corn.

What about the impact of the technology? So what you are saying is that the technology is there but it is not keeping up. Where are we headed in terms of the impact of the technology?

Shelman: Technology is such an important part of the equation. Historically, advances in agricultural technology came from the public sector: active plant breeding programs at land grant universities, international research programs such as those under the CGIAR. Today, most investment in research is in the private sector. And for the private sector to invest, mechanisms must exist that allow companies to capture a portion of the value of their technology. For some technologies, this is an easy thing to do. For example, if you look at the hybrid corn system, it's easy to measure the extra value from higher yields and farmers have to buy new seed every year in order to get that advantage. But for other technologies, such as those associated with using less water or less nitrogen fertilizer, or animals with lower emissions or other attributes that are better for the environment, it's harder for the companies to understand how they might capture that value. Normally you would say that would be a public good, and that public research programs should be working on this. But yet, the funds going into that sector are being pulled back, not only here in the U.S. but all over the world.

Another thing that we've talked a lot about in recent years is international markets. We're in a global market. I think we can accept that there's an increase in demand at the local level, the farmer's market products. Where is that going to wash out?

Shelman: Global or local is a very interesting issue. For 20 years or more we've talked about free trade, we've talked about opening markets; we've talked about how tariffs should come down. Yet given the recent run-up in prices and concerns about basic food availability, I see the world moving into a period where governments are going to become more focused on food security. We are seeing a growing number of consumers saying we like our food grown close to home. And now, on a broader basis, nations might be saying we like our food grown a little closer to home. So we have new tariff barriers that won't go away when prices moderate. Just as the United States has found that relying on foreign oil is risky, countries don't want to be in the same situation in terms of food security. Many

countries are questioning their policies, especially if they rely heavily on imports. I see more barriers come back into being, even though many have fought long and hard to get them to come down.