

OPENING KEYNOTE SESSION:

FOOD, AGRICULTURE, ENERGY, AND THREATS TO GLOBAL SECURITY

October 14, 2009 – 1:00-2:30 p.m.

Ambassador Kenneth Quinn – President, the World Food Prize Foundation

We have a remarkable opening keynote [session] – three outstanding leaders to set the stage and begin addressing these issues. First we're going to hear from Patricia Woertz, chairman, CEO, and president of Archer Daniels Midland Company, one of the world's largest agricultural processors with 28,000 employees, operations on six continents, and a logistics and transportation network that spans the globe.

Since joining ADM in 2006, Pat has led the company to record financial results, while growing its sourcing, transportation, and processing networks through select acquisitions, strategic capital investments, and a number of global joint ventures and partnerships. In addition, she's been highly active in advancing the company's efforts to improve its environmental footprint, make more efficient use of natural resources, and strengthen the integrity of the supply chain.

Earlier this year the company announced a new social investment program, *ADM Cares*, which directs up to one percent of pretax profits toward promoting agronomically and environmentally sound growing practices, farm safety and education, better health, incomes and working conditions for farming families and workers in food-growing regions. And I want to especially note that we receive from benefit and support through *ADM Cares*. Thank you very much from all of us at the World Food Prize for that.

She's also one of the founding members of Global Harvest Initiative. I was just at their kickoff, and I believe with our topic that that new initiative has great potential for bringing even more focus to the issues that we are going to address in our symposium

Please join me in welcoming Pat Woertz.

Patricia Woertz – Chairman, CEO, and President, Archer Daniels Midland Co.

Well, thank you, Ken, for that kind introduction, and thank you also for the invitation to participate here in this opening session of the Borlaug Dialogue.

As you noted, this symposium is, of course, a bittersweet occasion. With Dr. Borlaug's passing, we have lost one of our most compelling voices – a voice of science, a voice of reason, a voice of compassion – that for many decades called upon nations and organizations and individuals to certainly look beyond their differences to a vision of a world free from hunger. And this week as we celebrate his extraordinary achievements, we also honor the men and women that continue to work towards, and advance, his vision.

And chief among them is Dr. Ejeta, this year's World Food Prize Laureate. I had a chance to speak with Dr. Ejeta a little bit earlier today, and I think his success in developing hardier strains of African sorghum and working on the entire supply chain is a testament not only to his scientific ingenuity but his compassion as well.

On behalf of the 28,000 employees at Archer Daniels Midland, I'd like to express our sincere congratulations and our admiration to you for this absolutely life-sustaining work. Congratulations to you again.

At this session, we gather to listen and to learn and to promote some ideas and meaningful dialogue amongst ourselves, those of us that have a stake in the future, the future of food and agriculture and national security. And while we may differ on our approaches to these subjects, and we may come at it from different perspectives, I think Dr. Borlaug has shown us the willingness to listen – and in fact an eagerness to listen and dialogue on those very subjects, a set of complex subjects – is actually always a first step in finding ways to solve them.

So this afternoon I join you both to listen and also to share some ideas and share some perspective on the future of agriculture.

Now, at ADM our perspective comes from being a very large agricultural processor in a very diversified set of geographies. We are not farmers, nor are we end-food processors or retail-food manufacturers. Rather, we connect the harvest to the home, transforming crops into products that all of us use every day, and they serve the vital needs for food and for energy.

We operate one of the world's largest networks. Ken talked about it a bit. We purchase, we trade, we store, we transport crops on every continent. Each day, more than 200 facilities then process those crops into the products that we use every day. We process 3.5 million bushels of oilseeds a day – canola, soybeans, sunflower and other oilseeds; 200 million bushels of corn; 1 million bushels of wheat; and we also grind 15 percent of the world's cocoa production. And we transform these crops again into the hundreds of food and feed ingredients and industrial products that millions of people use every day.

And it's from this global perspective that we see both the growing demand for agricultural products and agriculture's ability to potentially provide the supply needed to meet that demand, and to do so sustainably. Certainly this is a time where agriculture has had more focus than almost any other time. And there's much progress, but there's also a lot of pressure and indeed much hope, much hope, for agriculture.

While millions of people in the world lack sufficient nutrition, there is another side of this where rising prosperity has actually allowed millions more to eat more sustainably, to have better diets than ever before, thanks in some part, and in much part, to the advances of agriculture and to agricultural productivity.

Today we're looking for agriculture to do even more. We all know that, because of the growing population – and particularly by the middle of the century – demand for food will double. We also know that energy from traditional sources will be insufficient to meet global demand by that same timeframe. And many people look to agriculture to help fill some of that gap as well.

And this is all against a backdrop of natural resources, of course, and sustaining natural resources, and somewhat constrained national resources, and growing environmental challenges. So this afternoon I'd like to share with you some thoughts about how agriculture can sustainably grow to meet that rising demand, and I would like to do it on three fronts: innovation, investment, and partnership. They will all be needed to fulfill agriculture's potential. Innovation, investment, and partnership.

First, innovation. Just as with the Green Revolution that Dr. Borlaug was so instrumental in fostering, our efforts to meet agricultural challenges of this century, I think, also begin with innovation – innovation to continue the advances in seed technology and farming practices that have dramatically improved the productivity of global farmlands. Indeed, I think these productivity advances that we've witnessed even in the past few years are among one of the strongest reasons why we are so optimistic about agriculture's future.

Between 1981 and 2007, world corn production grew 56 percent, while acreage dedicated to that corn production only grew 10 percent. Now, that's like creating 153 million virtual acres of arable land. And what's more, in a shorter time period, just the last ten years, farmers were able to meet sharp increases in the demand for corn, meat, and soybeans with just a 4 percent increase in crop area. It's these kinds of gains in productivity, despite the fact that the developing world has not even yet begun to reach those productivity in much of the developed world.

We've done some work in this at ADM, and we've looked at productivity gains that might be realized if we could close the gap – again, close the gap between productivity in the developed world and the yield, so to speak, or productivity in the developing world. And the results are quite illuminating.

We conducted a survey of all land currently in production. We took into account that you could have varying growing conditions from place to place. And then we asked, “What if all 15 of the top-producing nations or regions were able to achieve somewhere between just 70 and 80 percent of the best yields on records? What if we could get that kind of level of productivity out of the currently farmed land?” Without bringing a single acre of new production into play, we would see an increase of 50 percent in global maize, growth up to 52 percent in world wheat production, and an increase as much as 41 percent in rapeseed production.

Now, these yields alone would dramatically enhance the availability of key crops for food, fiber, and fuel uses. And when you combine that with the efficiencies in crop processing and feed utilization and biofuel production, the prospects for achieving benefits that would extend to all of us are much more pronounced.

Along with these innovations, we would need to continue to develop regionally appropriate practices to improve water utilization. We also need to improve crop nutrients and pest control and getting desired gains with minimal environmental impact. And I know that some of my fellow panelists here will have more to say on these important topics.

Innovation on the farm and improved yields alone, though, I don't think will be sufficient to meet the global demands. They also have to be accompanied by the second item – investment.

Both industry and government must continue to invest in infrastructure, in research, to ensure, first of all, that nothing that we already farm goes to waste. The FAO has estimated that 10 percent of the world's grain production, or about 220 million ton, is lost in mishandling or the post-harvest operations. And estimates put that percentage even higher for African nations, a little over 17 percent.

The FAO has also pointed out that the world wasted, for example, 48 million tons of rice in 2008 – enough to feed 184 million people, or approximately a fifth of those who are undernourished. And yet really little has been done to address this issue.

Last month Ken mentioned we had a symposium on the Global Harvest Initiative in Washington, DC, and Professor Adel Kader spoke there – he's with the Postharvest Technology Center at UC Davis – and he pointed out that fully 95 percent of research dollars directed at agriculture are focused on production, while only 5 percent are focused again on this toughie of post-harvest handling and infrastructure.

Clearly, protecting the crops we already harvest, through investment research and certain other activities related to infrastructure, is critical to be able to reach those who need it most and, if we can, ensure we make the most out of the land and the water and energy that we already use. So, again, this post-harvest initiative is very important.

Beyond investing in “waste not, want not,” we also need to make investment in critical transportation, processing, and storage infrastructure to ensure that we're actually able to handle tomorrow's larger crops, to collect and store food crops and collect biomass, and to continue delivering crops from surplus areas to deficit areas in regions in a timely and very cost-efficient manner.

So what level of investment is necessary to shore up either this absent or this ailing infrastructure? The International Food Policy Research Institute noted last year that reducing the number of people worldwide living in poverty by 50 percent would require an estimate of between \$14-28 billion in agricultural research and infrastructure, particularly in irrigation and in rural roads.

This week the FAO estimated that the investment required in developing countries to support needed expansion and agricultural output would amount to about \$83 billion a year, which would include the necessary downstream investment in storage and in processing facilities.

So while investment in basic infrastructure is generally the responsibility of government, clearly the private sector can play an important role here as well by making infrastructure investments that help build global markets and create economic opportunity.

Certainly at ADM we're investing to expand our global storage, transportation, and processing networks. We are completing the largest portfolio of capital investments ever undertaken in our 107-year history – investments that together represent about \$2.5 billion in spending – substantially to increase the capacity to process crops.

In both North and South America, we're expanding our origination, storage, and transportation capacity. And we also look to tomorrow's larger crop yields. We also know those crops will produce more biomass. So we're working with companies like John Deere and Monsanto to explore ways to sustainably harvest not only the crops but the crop waste for use as animal feed or for biofuel feedstock or that can be burned to generate steam or electricity.

Of course, investment in agricultural infrastructure also creates jobs here in the U.S. and in places like Kumasi, Ghana. This week we have opened our large cocoa-processing plant there, which will provide jobs in that country, rather than exporting raw materials.

The third area: If agriculture is going to fulfill the potential that many see that it has, we will also need very strong and mutually beneficial partnerships. Partnership where? Up and down the supply chain, from farmers all the way to consumers, with governments, with communities, with civil society as well. And our partnerships are not intended only to build our own capacity but that of growers and cooperatives in the world as well.

A few examples: In Brazil, for instance, we're collaborating with a sustainable farming group, Alância da Terra. They help soybean growers in the state of Mato Grosso to implement sustainable and more environmentally sound growing practices and improve their yields without expanding in any ecologically sensitive areas.

In India, we partner in a program that provides guidance to farmers on soil testing, land preparation, seed selection, fertilizer application, and, again, this important post-harvest management process. We're also helping lower growers in the state of Maharashtra to profitably cultivate a variety of different seeds – particularly in soybeans, which have never been grown in the area before. And then, in the process, we're able to provide the crushing operations we run there with locally sound and sourced feedstock.

In Côte d'Ivoire, in Africa, we've developed several initiatives designed to help cocoa farmers grow higher-quality beans under, again, environmentally and socially responsible conditions.

And as Ken mentioned, we're one of the founding partners of the Global Harvest Initiative, an alliance of leading global agribusinesses, including DuPont. Ellen and I were both at the opening a week or so ago in Washington, DC. And the goals of this initiative are – let me read them to you – they're threefold: to increase supply and improved distribution, to eliminate the agricultural productivity gap, and to help achieve food security; to prevent deforestation and the use of fragile lands for production; and to protect freshwater resources through improved plant technology and irrigation efficiency.

I think it's collaborations such as these, very positive collaborations, that represent the kind of partnership and multi-stakeholder partnerships that are critical to agriculture's continued development in the 21st century.

So as we pursue those three areas – innovation, investment, and partnership – I think it will help ensure that agriculture can meet the world's growing needs for food, fiber, fuel, and energy in a very sustainable way. We need to address frankly and thoroughly the concerns associated with this. In doing so, in addressing the concerns, we can also together work on what some of the solutions are to those concerns.

Any ambition this big, any vision this big, will have issues. We need to listen to diverse stakeholders, and as we work to implement, again, work both solutions together. But with continued innovation, investment, and partnership, we are confident that agriculture can create viable, sustainable solutions to some of the world's most pressing needs.

As Dr. Borlaug wrote in one of his last published pieces, "Given the right tools, farmers have shown an uncanny ability to feed themselves and others, and to ignite the economic engine that will reverse the cycle of chronic poverty." And as Dr. Borlaug showed us, the task before us is monumental, but it's not impossible. Dr. Borlaug set that future in motion, and now it's up to each of us to see his work through. I look forward to working with all of you to help make his vision possible.

Ambassador Kenneth Quinn

Wonderful, wonderful. Well, thank you, Pat. That was terrific. And I believe Dr. Borlaug's up there listening. Usually he had a table right over here; he always sat there and would listen, and I know he would be particularly focused on the point you were making about, how much can we increase production on the land currently under cultivation? Because, he always said, we've got two choices: We've got to grow more on the land we have, or people are going to cut down the forests and habitat to desperately try to grow more food. So I think he saw what you were pointing to and was always working to make it thus.