2014 BORLAUG DIALOGUE
October 17, 2014 – 12:00 p.m.
Laureate Luncheon Keynote: ***Dr. Sanjaya Rajaram***

Introduction:

Ambassador Kenneth M. Quinn
President - World Food Prize Foundation

So welcome to the Laureate Luncheon where we're going to have the Laureate Lecture. I hope everyone has enjoyed the symposium as we come now down to the culminating moments. So we want to begin this. We have a very special message to share with you. Now, I hope everybody has enjoyed your lunch, and our sponsor to the lunch is the FMC Corporation. You see it on your menu cards, and Mike Seyfert from FMC. Let's give FMC a big thank you for sponsoring our lunch today. So I think it's like four or five years in a row now.

And I hope you notice the menu card here, so everybody take a look at that. It's the "Rajaram Delights." But you notice that you had a dessert, and the dessert was a special Borlaug Centennial conclusion to the Rajaram Delights. It's the Borlaug Sundae. And we only added it because I remember Jeanie, when we were in Jinja—that's neat, Jeanie from Jinja or Jeanie in Jinja—and Uganda, talking about Norm. And she said when they drove on home leave from Mexico back into the United States… How did you do home leave, because you and your mom would go to Texas, and he'd have to go to Iowa.

Jeanie

We all went to Iowa.

Ambassador Quinn

You all went to Iowa. The first thing they did was stop at a Dairy Queen to get a sundae with the curly-Q on the top and then I think stopped at every Dairy Queen along the way. So the Borlaug sundae was there.

I want to thank Mary Foss. Mary are you still over there? There she is, the harpist to the World Food Prize. She played last night. There she is. Thank you, Mary. So we want to start this part of the program with a special kind of revealing insight into what life was like at CIMMYT. Sorry, Tom Lumpkin here. Don't worry, it's nothing scandalous. It might make for one of those Mexican soap operas. So we had somebody who remembered this and wants to share that memory. The Kazi family are all part of all our videos, her dad last night, and Nabeeha today. [Referring to video]

So with that, Dr. Rajaram, we'd like to invite you to the stage, and John Ruan III, our chairman, will present the diploma, the laureate diploma, to you. And then there's one more. John, do you want to say anything? Maybe you should come over and say what you're saying.

John Ruan III

I'd say this is the most important—you can hang that thing on the wall, but you can put this one in the bank.

Sanjaya Rajaram

Thank you very much, thank you.

Ambassador Quinn

He was wondering why the envelope is empty, so there's two answers to that. One answer is—well, we haven't heard your speech and we're waiting for that. But the real answer is because we'll transfer the money to you by wire, of course, but you need to have the envelope.

Sanjaya Rajaram

I was getting a big surprise, that the…

Ambassador Quinn

Yeah, that's right. You could see this moment of panic here. Anyway, Dr. Rajaram, this is your time for your Laureate Address.

LAUREATE ADDRESS

Dr. Sanjaya Rajaram
2014 World Food Prize Laureate

I don't have a very big lecture or things to say. Some of them would be repetitive, nonetheless coming from my heart.

Ambassador Quinn, Mr. Ruan, Jeanie and Julie Borlaug, fellow colleagues, your excellencies, ladies and gentlemen. Perhaps it is ironic that Mexico, my adopted country, became the home of modern wheat research. It's a somewhat unlikely candidate of this prestigious role, because it is 10,000 kilometers from the center of wheat's origin in the Fertile Crescent in present-day Iraq.

But it was the semi-dwarf wheats that Norman Borlaug and his colleagues grew in Mexico that literally sewed the seeds to greatly improve food security in Mexico and triggered the Green Revolution in late 1960s.

I grew up half the world away in India near the small farming community of Raipur [inaudible], which is a very small village, as a matter of fact. Yesterday I forgot to list, because it happened to be capital of, I don't come from capital. I come from a small village in the eastern

parts of the Uttar Pradesh, which is east of Delhi. My childhood was not easy. My family made a meager living growing maize, rice, wheat, sugar cane and millets, and there was a few goats, buffalos and cows.

I have dedicated my life to improving a lot of smallholder farmers worldwide, because I came from that background. Seeing people living in poverty ignited a passion in me to dedicate my life to work that could make a real difference. In the early days of the Indian independence, 96% of rural children lacked basic schooling. I was one of the fortunate poor persons. My parents valued education and made many sacrifices to send me to school.

I joined the International Maize and Wheat Improvement Center, CIMMYT, in 1969, a few years after the great events of the Green Revolution, which had already taken place especially in India and Pakistan. Despite the food security gains, there was no time for complacency, as Dr. Borlaug always reminded. There are still mountains to climb. The fight against hunger had not yet been won. And the fight for food and nutrition security had not yet ever begun.

With my companion in arms, in particular at that time, the late Dr. Glen Anderson, Byrd Curtis and Tony Fisher, all of whom led CIMMYT's global wheat program after Borlaug before me, my goal was to expand Norm's global vision, which was very much taught by him. What was that? Quite a lot has changed at CIMMYT since I joined, but the mission remains the same—to free farmers and consumers worldwide from food insecurity and poverty by sustainability, increasing the productivity of maize and wheat-based cropping systems.

After my long career as a breeder and wheat director at CIMMYT, I spent eight years as director of biodiversity and integrated gene management program and consultant to director general of ICARDA, Dr. Solh who happens to be here, at the International Center for Agricultural Research in the Dry Areas, known as ICARDA.

The appointment broadened my views on agriculture, the diversity and complexity of the smallholder farmer. And the critical importance of water and fertilizer for improved wheat, barley and food legumes production.

Working side by side with farmers in the Middle East, North Africa, and various other [inaudible] programs, system, I saw the real problems caused by diseases and insects in farmers' fields in the Fertile Crescent, just where the wheat had originated, a lot of problems. And you can realize if the wheat originated there, the insects and the pests also originated there.

Our achievements in Mexico were not a sudden change but a process over time, evolving in large global team. Norm always understood that, that progress is continuous. However, the single most important factor which became the driving force behind the force behind the success of CIMMYT's wheat program was the investment in people, in particular, young scientists.

One of Norm's main goals was to inspire the next generation, he very strongly instilled in me and many others, and I know World Food Prize Foundation has taken that responsibility with tremendous seriousness.

There's a certain knowledge base that cannot be acquired in a classroom but requires time in the field. Agricultural scientists belong in the field, according to Dr. Borlaug, and me too. The scientists should be able to communicate with our farmers and understand how it feels to be a farmer.

In 1983, on behalf of CIMMYT I visited China with a vision to bring training to young scientists, just as Norm had done 20 years earlier in India and Pakistan. Norman and I found that all the scientists were often set in their ways and continuous training of young scientists with open, fertile minds was critical to promote new ideas, germplasm and technology. Training is still a pillar of CIMMYT's work and I believe ICARDA's work and other CGIAR centers.

For me, it is the basic foundation on which all agricultural research can help farmers. Norm and I promoted an international community by connecting scientists across the world. Investment in training is an investment in scientists and in our future. Applied training should be the standard for any scientific institution.

We want to build on the legacy of Norman Borlaug and foster international agricultural community of applied training by creating the Borlaug Training Center Foundation. This will facilitate agricultural-based education with the ultimate end to achieve impact in farmers' fields. This is the best legacy we can create in the missions Norman Borlaug believed in.

Nothing is constant. We must respect history but cannot get stuck in the past. We must learn from it and continue to build on it. Today the wheat research community has a new partner to reach out—the private sector. And we have seen from the successes of the past, the public sector and the private sector can work well hand in hand. It is important, even in these times of economic uncertainty, that governments remember that vitally important needs to feed a growing global population, especially in the face of climate change. The private sector also presents a tremendous opportunity to both wheat research and to developing countries. They can provide genetic resources. They can support genetic resources, which can protect genetic diversity. Private companies can provide training for PhD students from developing countries, and especially hybrid wheat technology presents an investment prospect for the private sector, and we should be partnering with them. However, our partnership requires an open sharing of information about the CGIAR germplasm, breeding lines and improved wheat varieties.

CIMMYT and ICARDA's achievements result from partnership involving national agricultural research institution, farmer's organizations, universities, seed companies. There can be no permanent progress in the battle for food and nutritional security until all the partners that fight for food production unite in a common goal.

The success of wheat laid the foundation for the creation of CGIAR in 1971, and that was a legacy of Dr. Borlaug, unique legacy of him. I believe CGIAR would not have been created unless he had succeeded in the Green Revolution. CGIAR is now comprised of 15 robust international agricultural research centers. With hundreds of scientists around the world conducting research in wheat, maize, rice, millets, barley, lentils, chickpea, sweet potato, cassava, bananas, potato, sorghum, beans, peas, livestock, agroforestry and aquaculture. In an effort to bolster food security, this is all done to bolster food security and reduce poverty. It's a tremendous integrated approach.

Funding for agriculture research development has increased over the last five years. Yet today wheat, the staff of life of 1.2 billion people is one of the lowest funded crops in terms of research. It is encouraging, though, agriculture is back on the development agenda. There are many important new initiatives at the nexus of food security and nutrition. Sustainable livelihood and biodiversity can [inaudible]. However, this funding is too fragmented without clear priorities and without alignment, to us, our biggest challenges.

Based on current crop yields, feeding more than nine billion people by 2050 will not be a trivial task. Sustainably increasing wheat production will have a crucial impact on food security and livelihoods. By wheat alone, we would need to grow 60% more grain than now and on the same amount of land, all while trying to use pure nutrients, less water and labor.

Sub-Saharan Africa is the next frontier. The demand for wheat is growing there faster than any other commodity in a region that is not traditionally considered to be wheat eating. This demand is driven by population growth, urbanization as well as from a growing female workforce. Preferring wheat product, because they are fast and easy to prepare, freeing time that would otherwise be spent on traditional food processing and production.

India has changed a lot since my childhood. Today 71% of rural children are enrolled in primary schools, a far cry from 4% during my time. Today India's economy is one of the fastest-growing economies, and today India is harvesting nearly 95 million metric tons of wheat per year, compared to 10 million metric tons prior to the Green Revolution—almost tenfold increase, only increasing acres by three times.

But there is another India, one that is home to more than 20% of the world's poor, an India where 40% of children under the age of five are stunted, and an India where the production of wheat is not keeping pace with the fast-growing population. India's economic government has not been sufficient to significantly reduce poverty, especially for the 80 million Adivasis, the indigenous population of India and keeper and stewards of its plants and animal biodiversity.

The inspiration for my work partly comes from my childhood experiences in rural India. Unlike many of my contemporaries, I was given the privilege to receive an education, training and skill and the power to be a role model for the next generation of leadership, to give other young Indians the opportunity I had. I will be donating… Let me say it more loudly—I will be donating part of the World Food Prize money to an educational foundation in India.

The history of wheat is the history of civilization. Over 10,000 years ago in the Fertile Crescent our ancestors ascended from an existence as hunter gatherer and began tending and domesticating crops. This began wheat symbiotic relationship with the history of civilization. And humankind's responsibility as stewards of planet earth. Yet, without improving investment from both the private and public sector, wheat is at risk, especially if the decline in public investment in wheat as such continues as it has.

Come south this year to the Central Asia, across the Middle East and to the North Africa. Wheat is the staff of life for 1.2 billion people who live on less than two dollars a day. For them, wheat provides 20 to 50% of their daily calories and 24% of their protein. New ways must be found to spur public and private support for wheat research, because of the time and expense required to bring new varieties and technologies to the market. We need new varieties to fight the worst

aspects of climate change and to make the best use of ever-decreasing available arable land worldwide. The battle to feed more than nine billion will not be won on only one front. We need intelligent investment from public donors and private companies to underpin research and development.

Policies are needed that support fair profits for farmers and functional the markets. Our work must foster equity, equity for women and disadvantaged, while improving incomes and livelihood. Let no one think we can relax our efforts—Dr. Norman Borlaug always reminded that. There is no room for complacency—he always kept saying that. Those of us who believe in a food-secure future must redouble our efforts to ensure that in 2050 9.5 billion people have enough to eat.

It is not simply about releasing new varieties but the people these varieties will help. If you really believe in helping smallholder farmers, which according to FAO statistics, are 500 million farms inhabiting two billion people, invest in wheat.

Thank you. Thank you very much.

Ambassador Quinn

Dr. Rajaram, as we say in Iowa—you the man! That was wonderful, that was wonderful. So that will conclude our Laureate Luncheon but not your work. The Youth Institute is tomorrow. See, the laureates think when they give that speech—Ah, I'm done. I've made it—no, no, no, no. There's still another day to go. And as wonderful as this moment is, Norm always said that being at the Youth Institute was the best part of the whole week. And I think probably all of our laureates who are here would agree with that. So take the afternoon off, and we'll continue tonight. Let's have another round of applause for Dr. Rajaram.