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Dupont Food Security

# Amb. Quinn: Race to Food Security Requires Research-Driven Innovations

*The World Food Prize is set to announce its **2016 Laureates** during the **Borlaug Dialogue**, Oct. 14 in Des Moines, Iowa. This is the 30<sup>th</sup> Anniversary of Dr. Norman E. Borlaug establishing the World Food Prize. The annual Dialogue is appropriately titled, "Let Food Be Thy Medicine," in recognition of the Laureates' role in the development and implementation of biofortification, breeding critical vitamins and micronutrients into staple crops, thereby dramatically reducing hidden hunger for millions.*

*In advance of this week's activities, our Q&A series features Ambassador Kenneth M. Quinn, President of The World Food Prize Foundation. Dr. Quinn, former U.S. Ambassador to the Kingdom of Cambodia, assumed leadership of The World Food Prize Foundation on January 1, 2000, following his retirement from the State Department after a 32-year career in the Foreign Service.*

## **Q. How important is biotechnology to global food security?**

**A.** Given the challenges facing our planet, especially in regard to climate volatility, biotechnology and genetic modification are absolutely critical if we are to be able to feed the 9 billion people who will be on our planet by the year 2046. The additional two billion people who will be added to the population on earth will be largely concentrated in two areas where food security is most problematic: South Asia and Africa. There, poor subsistence smallholder farmers will somehow have to almost double their current yields if they are to begin to provide the food needed for all these additional mouths. And they must do so in the face of greatly increased climate volatility, which can mean floods one year and drought the next and saltwater intrusion for those near the ocean coastlines. It is absolutely essential that these farmers have all of the possible tools available to assist them, from traditional agro-ecology methods to the latest innovations in seeds developed using biotechnology that can help such farmers produce a plentiful crop despite extremely adverse environmental and weather conditions.

## **Q. What do you think are the biggest misconceptions about agricultural biotechnology?**

**A.** One of the biggest misconceptions is that somehow genetically modified foods may be dangerous or unhealthy to those who consume them. America is blessed with having the largest aggregation of agricultural research scientists and the most extensive system of public agricultural research universities in all human history. These institutions have carried out extensive tests and

assessments of GMO crops, without any results indicating that there is any danger to anyone who would consume such foods. Indeed, a large percentage of food consumed in the United States has GMO ingredients in them. Despite these research results, there is a perception that a food with GMO ingredients is less healthy and thus less preferable. As a result, there is an increasing demand on the part of some consumers to have food products that are GMO-free. While certainly every person should have the ability to know what they are consuming, the stigmatization of foods produced through biotechnology runs the risk of driving down the amount of money devoted to research and development of new GMO products. While this may not have adverse results in developed countries like the United States and Europe, a decrease in research in biotechnology could slow or halt the development of seeds that could assist those smallholder farmers in poor and developing countries who will desperately need the advantages that can likely only be conferred through scientific breakthroughs and the development of higher-yielding, disease-resistant, and environmentally sustainable seeds.



**Q. There are many new technologies with the potential to significantly impact global food security. What excites you about these technologies and their potential to impact hungry people around the world?**



**A.** At the same time that Norman Borlaug was bringing his “new miracle” wheat to India and Pakistan in the 1960s, I was working in villages in the Mekong Delta of Vietnam. There, I witnessed the very beginning of the Green Revolution in rice when the new IR8 varieties arrived from the International Rice Research Institute in the Philippines. This new variety, developed by World Food Prize Laureate Hank Beachell, was able to cut the growing time in half while doubling or tripling the yield of each rice plant. The transformative impact of the IR8 was immediate and dramatic. With two crops a year, each more plentiful than the past, I saw farmers go from subsistence to surplus in just a year or two, and the added income helped lift families out of poverty. Agricultural research into even higher yielding seeds, assisted by new technological innovations that permit precision agriculture to be implemented even in remote areas, demonstrates the potential to lessen poverty and hunger dramatically. But, we are in a race, as Norman Borlaug would have told us, to have these research-driven innovations come to the fore just as our population is increasing so rapidly. The greatest challenge in human history is whether we will be able to sustainably and nutritiously feed 9 billion people. It was at Expo Milano where I attended a session sponsored by DuPont that a member of the Economist Intelligence Unit answered that question, “Not without innovation!”

**Q. How is food security faring in Southeast Asia? What are the challenges and opportunities?**

**A.** In many ways, Southeast Asia and particularly Indochina represent the model for much of the developing world in terms of what is possible. When I arrived in that region in 1968, it was beset with conflict. While the Vietnam War ended in 1975, the aftermath lingered until the mid-1990s when, through diplomatic efforts in which I was personally involved, the United States was able to normalize its relations with Hanoi and Cambodia. That initiated a 25-year period of intense development, outside investment and increased trade. A significant part of this development effort has been the construction and upgrading of roads, particularly rural roads. What I learned during my time working in Mekong villages in the 1960s was that agricultural technology and innovation travels down paved roads. Now, Southeast Asia has road penetration in 95 to 98 percent of the region. As this has occurred, it has promoted greater agricultural production and peaceful development. China is another example of how road construction and new agricultural policies and technology can accelerate agricultural development and lower the poverty rate. In Africa, road penetration is still less than 50 percent and areas with poor road networks are often beset with conflict, violence and instability along with poverty and hunger. Norman Borlaug famously said, “If you want to feed Africa, build roads!”

**Q. What motivated you to devote your life to diplomatic service? How important is service today?**

**A.** When I started college, John F. Kennedy was president and America was seen as a great force for good in the world. Kennedy's call to my generation to ask "what you can do for your country" inspired me to want to be part of government service and to be involved in international affairs. When I passed the Foreign Service Exam, I imagined it would be a path to traditional embassy settings such as might be found in the old European capitals. But, by being assigned as a rural development officer in a war zone, I came to see that the higher calling would be an involvement with efforts to alleviate human suffering, such as that experienced by refugees, war victims, and those who were hungry. It was there that I found I could make a difference. Through our innovative World Food Prize youth programs for high school students, and especially our Borlaug-Ruan International Internships, I have come to see that young students and particularly young women, are just as inspired to confront the 21<sup>st</sup> Century problems that beset our planet. They want to make a difference in a broad range of issues including: environment, climate, water insecurity, gender inequity, malnutrition, and food shortages. I see the same desire to serve, although the opportunities may be found in areas of health, social development, enhanced nutrition, technology, sustainability, entrepreneurship and work with international NGOs. Such service and commitment has never been more important, given the issues our planet faces.

*The 2016 World Food Prize Borlaug Dialogue is live streaming. Connect with the event [online](#), October 12 – 14.*