THE WORLD FOOD PRIZE

2019 Borlaug Dialogue International Symposium "PAX AGRICULTURA: PEACE THROUGH AGRICULTURE" October 16-18, 2019 - Des Moines, Iowa

Laureate: Simon Groot October 18, 2019 - 12 noon

Introduction

Ambassador Kenneth M. Quinn

President - World Food Prize Foundation

All right, I hope everybody enjoyed their lunch. How about one more round of applause for the Marriott chefs and staff. I want to be sure I add a couple of words of recognition and thanks. First, I want to recognize my two sisters who are here, Patricia and Kathy. Stand up so everybody can see you, know that you're here. They've been putting up with me all week to be here—thanks.

I want to acknowledge Lance Husack and our transportation team who's been getting everybody around all week. And there's one other person I wanted to acknowledge. Where is he? Oh, Jim Heemstra. Come here, Jim. Come up here. Give Jessica your camera. Jim has been taking incredible photos of the World Food Prize, even longer than I've been here. So now we've got a photo of him, taken with his own camera. Thank you.

So I hope you all checked your menu. I want to show you the depths of the research that we do at the World Food Prize. You see poached pears ala groot on there. So what we need to know is that Simon's mother, yes, Maaike and Art and Rutger's grandmother was an expert at poaching pears. We knew that. That's how we put it on the menu. And we also had Enkhuizen pole beans, recognizing their hometown.

I want to be sure—everybody, take a look on your table. Pass it around, and that's the list of our sponsors. See, it's an amazing compilation. When I came, we had four sponsors gave us a total of \$45,000. Now we have over 70 sponsors who give us a total of \$1.7 million. Thank you, thank you, all of you who are here. I want you to know that Dr. Akinwumi Adesina launched his book yesterday, as well as his fellows, *Against All Odds*, written by Leon Hesser, who did a Norman Borlaug biography, book. So I think there's still some for sale out over by the elevator, so stop by. And I don't get any cut, I promise.

So now we're to a point where we have some additional recognition for the laureate. Last night, he got the sculpture. But if I could invite Simon Groot and our chairman, John Ruan III, to please come up to the stage, we'll have the presentation of the Laureate Diploma. Let's have a little applause to help them on their way here.

So Jeanie Borlaug, who's here, Jeanie Borlaug Laube who's here. You know that when I first came, her dad, Dr. Norman Borlaug, said, "When you get the Nobel Prize, you get a diploma. We don't have a diploma." So, you know, his wish was my command, so we created the World Food Prize Laureate Diploma. I had to make a lot of them to give to the laureates before I came,

so we caught up there. And we now have the presentation of the 2019 Laureate Diploma from John Ruan. John.

John Ruan

Simon as you know the Food Prize also comes with a cash prize. So I don't know how that's going to get to you but here's the fake envelope.

Ambassador Quinn

So if you didn't hear what John said, there's a cash prize that comes, and he said, "The money's gonna get to you somehow, but here's a fake envelope. We like to have some money in there." And so, you know, if the money doesn't arrive or something, you've still got the envelope.

Simon Groot

Can I say a few words?

Ambassador Quinn

Sure.

Simon Groot

What a wonderful prize. Well, this of course is about much more than the money. And I've been so proud to have been honored in so many ways during the last few days. And now that I have received this token, what is supposed to be, during the party last night I had the chance also to explain what the intention is of how to spend the money. And I think this is a wider audience than we had last night, so let me repeat that message.

East-West, as I mentioned on several occasions, is now engaged in trying to start the innovation process of vegetable farming in Africa. We have several teams on the ground in several of the countries. One of the countries is Uganda where we see great perspectives in developing the farmer skills and introducing better seeds but the usual combination that we have practiced in Asia and which has been sort of successful. And now in Uganda there's a lot of need for farmer extension work in introducing innovative seeds, and we will spend the money on supporting and extending that knowledge transfer program in Uganda. Thank you very much.

Ambassador Quinn

Let me invite John—you can return to your seat there, and Simon, and we'll get to the main event. Please, Simon, be comfortable and sit down, or if you want to, you can stand for the whole fireside chat.

So I want you to know I had a wonderful event – it's not vegetables. But this morning I was with Jan Low and Maria Andrade and Robert Mwanga from the International Potato Center. They were our 2016 World Food Prize laureates, and they told me they have a new, high-performing strain of orange flesh sweet potatoes in Mozambique that's been named Ambassador Ken. So I said, "I hope they don't wither on the vine like I do."

So now I want to introduce Dr. Molly Jahn. She leads an independent research group in Madison, Wisconsin, where I used to live, and as a professor on leave from the University of Wisconsin where she holds appointments in the Global Health Institute, the Nelson Institute for Environmental Studies, and the Law School. She served as the 12th Dean and Director of the Wisconsin College of Agriculture and Life Sciences and as Undersecretary of Agriculture in the first Obama Administration, so with Secretary Vilsack. She recently co-authored a major study for Lloyds of London on "Evolving Risk in the Global Food System." But most importantly for today, she is a vegetable breeder who serves on the Science Advisory Board of East-West Seeds. Dr. Molly Jahn.

FIRESIDE CHAT

Mr. Simon Groot

2019 World Food Prize Laureate - Founder, East-West Seed

Professor Molly Jahn

Principal, The Jahn Research Group

Molly Well, Simon, it's certainly my great pleasure and privilege and honor to have the opportunity to sit with you in this last event of a marvelous week, celebrating your accomplishments. I have had the pleasure and privilege of watching East-West Seed grow from my graduate student days at Cornell University, working with Henry Munger, and know that you are, above all, a humble and a practical man who generously gives credit to those around you who help you with achieving your vision.

That said, how did it feel last night in that grand ceremony in the Iowa State Capitol, celebrating your vision and your accomplishments?

Simon It was an overwhelming situation to get this kind of recognition for the work we have done for all these years and to realize that we can play a continuing role in the development of Africa, including the spending of the prize money and getting so much more support from a wide range of other people doing the same things. I think there is a lot of work to be done there, and I think we are now in a good position to link up with many other people who are on the same track of trying to make further developments in the world of African farmers.

Molly Wonderful. For those of you who were able to see the ceremony, you know the video about Simon's accomplishments began with a reminder of the famine that the Dutch experienced at the end of World War II and also celebrated the history of your family's engagement in this seed business. So you are a sixth-generation vegetable seedsman, and here are your children sitting at the table right in front, with grandchildren also interested in the business. I heard, by the way, that he took his teenage grandchildren to Indonesia last year—wore them all out. Can you talk a little bit about the importance of family in your achievements, in your vision for the business, and in your hopes for the business?

Simon That's a real tall order, and I'll try to do it, but I will have to keep it brief. The seeds industry has gone through a long cycle of development, and I am very much aware of how it all started in the, even 18th century with the first vegetable farmers in Holland who were a little more clever than others to save their own seeds and by doing so, were able to make the first crop improvements. And these were the alternative systems of selection, and we have gone through so many stages of crop improvement technologies, as you are very well aware, and we are trying to make use of all the tools that are available now.

But I think this industry has a very long history, because Iowa is a place where a very crucial chapter of the industry's history to place when Henry Wallace got himself into the corn seeds industry and really started, with the help of all the scientists here at Iowa State University, I assume, the start of the Iowa corn business. And that was really the first crop where hybrids started to play a crucial role in the crop improvements cycle of the world.

And I'm very proud that we have been able to continue that same process on the tropical vegetables of the world, and we have seen such huge progress comparable to what was achieved in crop improvement from the corn. It was again a long way, but we take up the crops one by one, and the results are fantastic. I will not go into all the details. But many of these crops were the first times taken by us because nobody else knew them outside of Southeast Asia. So that was a real unique part of our challenges—to put that same kind of technology into the breeding of the typical Asian crops.

Molly So when you sold the original family business about in the early 1980s, you had a remarkable idea, and that was to start a humanitarian for-profit seed enterprise. Now, how did you come to choose South Asia as a place to begin that idea?

Simon Well, it was not just a flash in the pan idea. I moved around a little bit to try and identify which would be the best place to get this process started. So I took some, several to Central America, the tropical part of it. I went to talk to the people at the various institutes in Colombia, in Costa Rica, and I looked at markets there, and also Southeast Asia, with a small team of friends who had the same interests, even one of my old friends in the flower seed industry. He was keen on taking a part in that new quest. So we spent about six weeks, traveling the various countries in Southeast Asia to look for where the best chances were in terms of crop improvement, in terms of market developments, and in terms of farmer competencies.

And so in the end we chose Southeast Asia in general, being a place with a lot of people and a lot of people interested in vegetable consumption. And, well, finally, Southeast Asia is a huge area, so we had to settle down on just one country to get started. And that's really why we had our main learning curve in the Philippines. And that was a country where knowledge was more accessible because of the language, than any of the other Southeast Asian countries. Thailand was at that time more difficult to get through the language hurdles. And that was the great thing about the Philippines, that whatever I had to learn, there was a lot of things I had to learn. I paraphrase and say, well, I when came to the Philippines with a hundred thousand questions and I just had to find a partner who could help me find answers. So the partner said, "Well, I don't know, but I know 50 people in my country that can provide you with the answers to all these hundred thousand questions," and in all directions in the plant science community and

the farming community, in the governmental community. So you have to be very inquisitive, really, to get this off the ground in a completely new culture or environment also.

So then from Philippines it moved gradually to Thailand, and then after about ten years we felt we had accumulated enough expertise in different fields and the right people in those two startup countries to tackle a real major country like Indonesia, with now 250 million people and several million hectares of vegetable farming.

Molly And actually that was the very first time I had a chance to visit an East-West Seed installation. It was just a small, almost shack, dirt floor, a hand-cleaning seeds. Why don't you tell us a little bit about the company today – how many employees, how many countries, crops, etc.?

Simon The number of employees is easier to say than some of the other numbers, but that's about 5,000 now, and we cover most of the countries in Southeast Asia. We have more recently also started working in Cambodia, which was one of the smaller countries left behind for us, but now we are there, and it seems to be going well. There is a lot of interest in modern technology and modern seeds quality in Cambodia, and the farmers are very responsive, and I think that one of the new stars in our group of countries.

And then we are doing some work in Central America, and some of the crops we have developed for Southeast Asia even have turned out to be very useful for the farmers in Central America, so that's another step. India is also on our list now, so the number of countries, I think, is now about 16, and Africa has a lot more countries, so we can also do that one by one—that's how we do it. It has to be a locally supported program, and it has to be done with local people. This kind of development is very much localized. It depends on eating habits, on crops, on farming habits, and then there are other variables. So this is the way we have done it in Asia. I can repeat that in Africa now.

Molly And I think this focus that the company has had on a strategy for building markets and building sustained relationships in those markets to support both the delivery of the products and the growth of those products and then the consumption of those products has time and time again proven to be a very successful strategy, resulting in East-West being named in multiple years number one for seed access. Did you find that your early contacts with small farmers who had not yet seen or experienced participation in commercial markets was very difficult? Were they receptive, or did they hesitate?

Simon They were very reluctant to spend serious money on buying seeds, as they were all used to saving their own seeds — that's the oldest addition in the agricultural society. You make your own seeds. And there were a few exceptions, of course, that had to be taken in from somewhere else. But in general that was the mindset, and it's still there. In some crops we have to keep up the fight to convince the farmers and everybody else that professional seeds offer distinct advantages in terms of generating more income for the farmers — that's all there is to it. So the farmers were extremely reluctant to spend their good money on buying seeds at any price. To them, any seed you buy was too expensive, especially if you are a very poor farmer. So that was one of the things we had to figure out — how to find a clever way to get these farmers to accept our proposal that buying a few good seeds would actually enhance their own income. And that had to do with clever marketing and clever pricing and clever packaging — all the ingredients of a

clever marketing program. So selling seeds is more than just making a new seed, but it also involves designing a clever marketing program that suits the situation and the environment.

Molly So tell us about one or more of those early successes that provided to you that this approach could work.

Simon Wow, you want me to go into crops.

Molly Well, yeah, of course. Pick one.

Simon It's my favorite topic. I could talk about crops, but not all the audience is all so keen to the crops as I am.

Molly This is the moment for vegetables.

Simon Yes, yes, yes. Well, as I mentioned last night, especially the crops that we will be tackling again as we have done before, are the pumpkins and tomatoes of Uganda. Those are crucial crops in the African foods. The tomatoes are a crucial part, especially the cooked version of tomatoes, not so much the fresh, raw tomatoes that most Africans are using the tomatoes as an ingredient of their cooked foods and meals.

And pumpkins are a very much under-recognized source of valuable nutrition, as Henry Munger would have confirmed, your master and my inspirator, I might say. He could never have foreseen that the hybrid pumpkin business would take on such a huge development in Asia and to the point that we are now, I think, 90% commercial seeds and no longer farmer saved seeds. And these are hybrid pumpkin seeds — that's one penny apiece, and we're selling them by the billions throughout Asia. And I think that is a real breakthrough, that most people have never fully realized the potential that the pumpkins are even very suitable for further improving the nutritional content. I think we can even compare them to the sweet potato nutritional improvement. So there is still work to be done, and in Africa there is a lot of pumpkin eating. It's a long story. The pumpkins all came from tropical Latin America, and that's where the original gene material came from. And they started their march to the world by way of the Philippines and the colonials in Mexico. They took them to the Philippines, and that's how these pumpkins ended up in the rest of Asia and Africa.

Molly So over and over you have identified types that are acceptable to local populations.

Simon Yes.

Molly You've come in with adaptive, healthy and high-quality seed.

Simon Yes.

Molly And you have brought technologies as simple but important and powerful as hybrids.

Simon Yes.

Molly And have made the company that is East-West Seed today. In the context of the last 40 years of your work with East-West Seed and now as a World Food Prize laureate, what

do you see is the path forward? What do you and your family see is the path forward for East-West Seed? You've mentioned Africa. Maybe you could talk a little bit more about your aspirations for Africa and elsewhere in the world.

Simon Well, it was just at the beginning of our African programs, and I am not a futurist. I always think there is a potential. We are now operating in a few countries. We've discovered a few crops, typical African crops, that have huge improvement potential and have been completely neglected by any other program, I think. Other than the okra. Okra is a huge crop in Africa, and it's daily food in different forms, both fresh and dry. Dry okra is a major part of the... It's a slightly different botanical type from the fresh type, but most types have great value for development. And we have a small program on okra important now in West Africa, exploring the options and collecting the materials. And so there's a good start there. That is, I think, another future crop where modern technologies in breeding will make a huge difference. And again we're talking millions of hectares of okra farming in West Africa, especially Nigeria and the other West African countries.

Molly We've talked now about some of your successes. Perhaps you could share with us some of the most pressing concerns you see for smallholder farmers who, maybe your customers and the communities in which they live?

Simon Yeah, well, it is sort of a socioeconomic issue that we think that small farmers should have more opportunities to be lifted out of their chronic poverty. And then in general I think vegetable farming offers more opportunities for small-acre farming to increase the yields they can obtain from their lands. To put it bluntly, in a country like the Philippines, we have engaged ourselves in what we call a crop substitution program. We tell many farmers, "Just give up farming rice—there's plenty of rice in the world—and grow more vegetables because there is more money. It's a very simple message, and many small farmers are recognizing that. And for long-term we have to look the rice supplies, but currently rice is still a glut in the rice markets, global rice markets, and rice is selling at an extremely low price. And being a small rice farmer in the Philippines means chronic poverty, basically. So the thing is, this opportunity of making, not all of them, of course, but by switching into more high-value crops.

Molly One of Henry Munger's favorite points to make about vegetables was when was time was considered in overall yield, vegetables become highly productive for calories and protein as well as micronutrients as well as nutrients in general.

Simon Yes.

Molly You have recognized this in the commitment that East-West Seed brings to supporting organizations coming into areas that have recently experienced major natural catastrophes, the cyclone in the Philippines and Myanmar, most recently in Mozambique.

Simon Yes.

Molly What are some of the characteristics of vegetables that make them especially suitable for a place in an emergency response?

Simon Some of the vegetables — and that goes especially for the leafy vegetables, and Asia has quite a few of those that are hardly known anywhere else — can be produced in a very short time. The kangkong are one that is all over Southeast Asia that's called the water spinach or water convolvulus or many like names, of course, but is a crop that will produce 80 tons of leaf in three weeks' time, from planting the seeds and getting the leaves ready for harvest. So that is a huge potential crop for fast relief and also for generating income, because the crop is able to generate decent market pricing, and it's easy to handle. It needs rain, so it cannot be handled..., or rain or whatever source of water is available. And there are a few more like that, and I think these are unique opportunities. And they also exist in the traditional African leafies that we are looking more closely at now.

Molly Are there any of those species in addition to kangkong or water spinach that stand out for you?

Simon Well, there are several of the crops in Asia that have originally Chinese origin. Many of the South Asian vegetable crops originated in that huge country of China where vegetable farming was already well-established, maybe a thousand years before anyone else in Southeast Asia. So, some of these leafy crops are of Chinese origin. Well, we were able to add a few useful properties to these crops over the years, but they are still there and those are the typical Southeast Asian leafs. The bean—we had our European beans today, and that's great—I enjoyed that very much. But most of the beans in tropical Asia are not the same kind of bean, but another type. It is called yard-long bean, which is not quite right, because the pods are long but only half a yard. And the French go even further — they call the Haricot kilomètre. That's the typical French exaggeration. But they are again a multi-million crop in tropical Asia, between Indonesia as the champion, and then there's all the other neighboring countries that have them wherever the climate is suitable. It has to be a tropical climate, with high nighttime temperatures; otherwise, they will not make it. But they are a huge crop, and they are loaded with virus problems, and we have a very serious program in tackling the virus issues in the yard-long beans. Quite unique, I think. And so that is another major crop that we like, and it's very much a small farmer crop, because it's very labor-intensive.

Molly Well, I am sure you have convinced especially the young people in the audience about the importance and excitement of the big, wide world of vegetables. But I wonder — considering we have so many young people in the room who will go forward from this event into careers and lives serving humanity—I wonder if you have any special words for them.

Simon I think one of the messages I would like to take to the younger people is that the world needs more than just crop science. It needs people also that can play an active role in introducing a more modern way of marketing, because everything you do needs to be positioned into a marketing situation in every country. And it's not a subject that is so obvious for most people, and it was not even so obvious for me when we started. I had this sort of affinity for it, because it's in my educational background. And I was able to make use of it and further develop these analytical skills of how can we advance the markets in these countries? Everything has to fit into a market system before it can yield economic results. You have to create a way to increase the market value of a product, and that takes another approach and another type of thinking. And there is a lot of

opportunities in all these countries for joining that quest for developing that functioning markets for these products.

Molly So teamwork, teamwork – right?

Simon Yes.

Molly Well, you stressed last night that your success drew from science and business.

Simon Yes.

Molly From a base in the past and a focus on the present and future. From the strength that you drew from your family and you have now shared with your family her and this family out there. And I know on behalf of everyone in the room and everyone around the world who has benefited, the millions and millions of people who have benefited from the work of East-West Seed, from that dream of a humanitarian for-profit enterprise, selling high-quality vegetable seed to smallholders, we thank you for your accomplish and for your inspiration.

Simon Thank you very much, Molly.

Ambassador Quinn

What a great fireside chat. How about another round, longer round of applause? That was wonderful. Now, I have a special request that comes from Dr. Borlaug when he was here. For all the non-youth institute individuals—that means all the adults—sitting here, could you stay in place, please, so we can get those young people that Simon has just inspired, out the door to the Global Youth Institute. So please just stay put. I can do a few more jokes or something to amuse you. But the youth team, start leaving. And one more round of applause for Simon Groot, Molly Jahn. So great.