

EXECUTIVE SUMMARY

On Thursday, October 13, 2011, *The Atlantic* and Beef Checkoff brought together a group of experts to discuss the complex challenge of raising enough food to feed a growing population, while preserving our natural resources. The goal of the program was to educate Washington, D.C.-area thought leaders and millennials on the urgent food issues that will arise as the population approaches nine billion.

The forum opened with introductory remarks from Richard Gebhart, Professor of Operations Management and Director of Assessment at the University of Tulsa, and Owner of Beacon Hill Ranch. *Atlantic* Senior Editor Corby Kummer moderated the day's programming, which began with an interview with former Secretary of Agriculture, Dan Glickman. In the interview, Glickman addressed a wide range of food policy issues, focusing on the importance of international food aid and agricultural development, as well as the need to reallocate funds within the federal agriculture budget. Glickman also framed the gravity of today's food scarcity for the audience. He urged citizens and policymakers to give food the attention it deserves, asserting, "[Food issues] are just as important as energy security and health security... These are big, complicated, global issues that affect everybody from the manufacturing industry to the health of the general public."

A panel of experts followed the Glickman interview, and included Steve Foglesong, Owner and Rancher at Black Gold Ranch; Suzy Friedman, Deputy Director of Working Lands at Environmental Defense Fund (EDF); and Tony Hall, Executive Director of the Alliance to End Hunger. The panel focused on sustainable food production, but touched on numerous other topics, including hunger and food availability, food pricing, and other pressing food policy issues. All panelists, as well as Glickman, argued for an increased use of technology to create a more sustainable agricultural system.

Hunger was a major topic of discussion as Hall echoed Glickman's sentiments on international and domestic hunger, emphasizing the importance of food aid. Hall argued that investment in food aid is well spent—especially when coupled with the development of agricultural self-sufficiency in emerging economies—and asserted that as a result of such investment, global hunger has decreased in recent years. Friedman discussed the EDF's work to curtail the environmental impacts of food production, in large part by implementing better input management systems on farms. Foglesong discussed the current challenges farmers and ranchers face today, and highlighted how he has made his operation more sustainable.

Recognizing that the next generation will continue to take on the challenge of feeding a growing world, four millennials—including students and a recent graduate—were invited to give their thoughts about issues raised throughout the discussion. Panelists included, Aaron Adalja, a Ph.D. candidate for agricultural and resource economics and graduate research assistant at the University of Maryland; Josephine Chu, a master's student at American University, weekend educator at Living Classrooms Children's Museums, and after-school educator at Washington Yu Ying Public Charter School; Michael DeTerra a 2011 graduate of Washington State University; and Micaela Samodelov, an undergraduate student and undergraduate assistant for the Global Environmental Politics program at American University.



Three major themes emerged from the discussion: food security, the environment and sustainable agriculture, and farming and ranching challenges.

Food Security Challenges

World View

Hall opened up the panel discussion with a number of shocking statistics on hunger and malnutrition, noting that there are more hungry people in the world today than the combined populations of the U.S., Canada, and the European Union. Hall and Glickman agreed that while the United States' longstanding policy on food aid has traditionally been to deliver food to countries in crisis, such emergency aid will be less likely in the future due to our dwindling surpluses. Food aid is essential for countries confronting hunger crises, said Glickman and Hall, but they both argued that fostering agricultural development in emerging nations is an equally pressing policy priority. Agricultural development allows countries to manage their own food supply, making them less dependent on Western interventions. Glickman and Hall urged Congress to continue funding agricultural research and food aid, which are essential in the fight against the global hunger epidemic.

- *“Our foreign policy, as it relates to agriculture, has largely been to provide large amounts of food to the rest of the world. We will continue to do that when there are major natural catastrophes and disasters where we can, but there is much less of that available in the future than there used to be in the past. We just have higher demand for food, and we’re not going to be able to have the surpluses in the future that we used to have. This is going to be a real problem for us, because we still have this obligation to provide food for humanitarian purposes.” Dan Glickman*
- *“Africa doesn’t produce any more food today than they did 30 years ago. There hasn’t been any investment in agriculture, not only through the countries over there, but through the Western nations investing in these countries, until recently.” Tony Hall*

United States View

Hall said that eliminating hunger in the United States will require collaboration amongst all stakeholders, including hunger groups, agriculture groups, non-governmental organizations, and businesses. A goal for the United States to work toward, said Hall, is to never let another citizen go to bed hungry.

- *“Today, the average farmer feeds 155 people. In 1950, that ratio was 1 to 19.” Richard Gebhart*

Technology

All speakers agreed that an increased use of technology will be essential to feed our growing population. Despite the difficult economic situation and impending budget cuts, Glickman advocated for continued emphasis on research and development into agricultural technologies, saying that in the long term the right technology can save money while feeding more people.

- *“We cannot feed a growing world—we cannot feed the Chinas, Indias, and Indonesias—without finding ways to grow crops with less water. That’s one of the ways that new technology has to play a role.” Dan Glickman*
- *“The great strength of American agriculture has been in a research budget, which over the last 50 years has helped to feed the world and develop technology.” Dan Glickman*

Environmental and Sustainability Challenges

Panelists agreed that the major challenge of increased food production will be preserving our natural resources. Speakers raised a variety of issues related to agriculture and the environment, all agreeing that the solution must involve an increased use of technology.

Moving Away from a “One-Size-Fits-All” Approach

Friedman stressed the importance of moving away from a one-size-fits-all approach to sustainability in agriculture, proposing that information from individual farms should be used more effectively to solve environmental challenges in agriculture. Gebhart and Foglesong agreed with Friedman’s argument, and suggested a more tailored approach to land use to maximize efficient food production.

- *“There are 587 million acres of grazing land in the United States that is only suitable for animals. That is 587 million acres that cannot, and should not, be used for crops...That doubles our food production.” Richard Gebhart*

Water Availability

Glickman considers water availability to be the most serious issue affecting food and agriculture today, and questions how society will feed a growing population when we have nearly depleted our water resources. Proposed solutions included the desalinization of ocean water and crops that require less water, both of which require technological innovations.

Technology

Speakers agreed that technology and innovation are not only key to producing crops to feed a growing world population, but also are important to reducing agriculture's environmental footprint and preserving natural resources. Major takeaways from the conversation on technology included Glickman's suggestion that research is an essential component of the government's agricultural spending and should not be eliminated as part of the broader budget cuts; Friedman's belief that greater investment from academics and other innovators is needed to develop user-friendly agricultural methods; and Friedman and Foglesong's examples of ways in which producers are introducing technology into their farming operations.

- *"We have the smallest cowherd since...1950, and in that same timeframe, with the innovations we've made in feeding cattle, we've reduced our carbon footprint." Steve Foglesong*
- *"A planet that could soon be supporting as many as 10 billion human beings has to work differently from one that held one billion people, mostly peasants, 200 years ago. The challenge of our age is to use human ingenuity to set things up so the planet can accomplish its 21st century task. Returning to the way things were is not realistic or morally tenable." Suzy Friedman*
- *"We need to look ahead at what are the innovative ideas, technologies, tools, and approaches that can meet the food demands without destroying the resources needed." Suzy Friedman*
- *"Down the road, as we're looking at a world where we have less water, less arable soil, volatility of climate issues, and a growing world and a hungry world—we've got to find ways to help people produce more on less, and that's why the research budget is so important." Dan Glickman*

Economic Feasibility

According to Foglesong and Friedman, producers are open to working toward more sustainable practices in agriculture. They noted a few examples of cost neutral approaches in widespread use, including the use of animal manure as fertilizer. However, both agreed that until other methods in sustainable agriculture become more affordable, they will not be adopted at commercial scale.

- *"Environmental concerns are top of mind...to farmers and ranchers every day...We are original environmentalists...It's what we live and breathe. Our families live there...We're certainly not going to do anything in our environment to harm that." Steve Foglesong*
- *"It's not just a job, it's their life. It's where they are everyday, it's where they go home to. We need to find ways to make it [farming] so that it's still something they can make a living at. We can't put demands on farmers if it means they're just going to lose money—that means the farmers can't be there anymore. And then how do we meet food production goals?" Suzy Friedman*

Farming and Ranching Challenges

Economic Pressures

Discussion on farming and ranching largely looked at the economic challenges within agriculture today, with a particular focus on the United States' financial crisis. Glickman discussed the effect budget pressures will have on agricultural programs, stating that cuts are inevitable. He suggested a refocusing of agricultural budget allocations toward three key areas: research, conservation, and consumer issues, such as diet and health.

Foglesong said that consumers set the standard within the food industry, and that producers are price takers, not price setters. The current economy has resulted in a shrinking cow herd, according to Foglesong, and if the system stays the way it is, with cattle feedlots running at 50 percent or 75 percent capacity, more operations will be forced to close. The closing of feedlots will lead to the depletion of jobs and infrastructure, he asserted, making it near impossible to rebuild the industry.

- *"Until consumers over a sustained period are going to pay a higher price, and farmers trust that the market will continue to be there year in and year out, they're going to be hesitant to keep back those heifers and build that cow herd." Steve Foglesong*
- *"I think that we have to recognize that agriculture is somewhat unique because no other industry is so weather dependent, and so outside your own industry dependent...You will always need some protection against the*

volatility of climate, weather, natural and political disasters in agriculture that you probably don't have to the same degree as other lines of work. I think that our programs ought to be designed with that in mind, that is, to protect people against risk.” Dan Glickman

Connecting with Consumers

While Glickman covered the policy side of current issues within farming and ranching, the majority of the panelists focused on the difficulties faced by food producers today. Gebhart and Foglesong argued that many of the challenges the industry faces are the result of Americans' limited knowledge about where and how their food is produced, noting that only 2 percent of the population raises food today.

- *“My definition of sustainability is when you have a ranch family that keeps that business in their hands for 100 years and is able to hand that business down from generation to generation.” Steve Foglesong*
- *“I know most of you are four or five generations removed from the farm...It's important for us to open this dialogue. I welcome the conversation... Cattlemen across the nation are willing to engage in this discussion with you.” Richard Gebhart*

The Millennial Response Panel

Defining “Sustainability”

At the beginning of the panel, the millennials were asked to define “sustainability.” All agreed that sustainability involves collaboration amongst many different stakeholders, including economic, social, environmental, cultural, and educational institutions.

- *“How can we maintain the current standard of living...how can we set up a system of production that will allow us to persist into the future without compromising the current standard of living? I tend to agree with the panelists we had here earlier, which is that there is a place for these new technologies in agriculture—it's really just trying to find the balance.” Aaron Adalja*
- *“My definition of sustainability would go beyond just economic—it would include economic, social, and environmental equity. You have to look at all three of these different issues because they're all so interrelated.” Josephine Chu*
- *“Education is one of the best ways people can become sustainable.” Michael DeTerra*



Reconnecting People with their Food Source

The millennials emphasized the problem presented by Americans' disconnection from their food sources. They proposed solutions, including bolstering food policy education and doing more to encourage home-cooked meals. Chu and DeTerra have both worked on projects to educate the public, and believe this education outreach was successful. DeTerra, with the support of the Beef Checkoff, made a documentary to help the public understand food origins. Through volunteer work with Washington, D.C.-area children, Chu found that many consumers welcome the opportunity to learn more about food production.

- *“One of my goals of the documentary was to educate people to know where their food comes from, to know that it's done in a safe environment. Through that, people can understand sustainable ways of farming, ranching, where they can get their food.” Michael DeTerra*
- *“If we're so removed from this food that we put into our bodies, how can we even think about the way it's being produced?” Micaela Samodelov*

Conclusions

The first step toward feeding future generations is the willingness and ability of different groups to work together on challenging food issues. As our population swells to nine billion, collaborative efforts can help to alleviate hunger, stabilize food prices, promote meaningful regulation and policies, and incentivize the development of agricultural technologies. While speakers at *The Atlantic* and Beef Checkoff's October forum covered a wide range of food-related topics, consensus emerged on one overarching theme: Our food challenges require collaboration and compromise by all stakeholders and an open dialogue with all parties about how food is raised.