



READER'S GUIDE

HOW TO FEED THE WORLD

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Why We Wrote *How to Feed the World*

We started writing this book because we were both alarmed at the tremendous rhetorical disconnect between the various groups engaged in the food and agricultural sectors. We are exposed to this tension daily. It's on TV, movies, in the news media, and at the grocery store. Too many voices are cherry-picking (no pun intended!) particular nuggets of information

that support their point of view or promote their product or agenda while disregarding other evidence or context.

These huge gaps in knowledge and communication are a threat to, at worst, our existence. At best, they endanger a more harmonious existence where people have affordable access to the food they need to thrive and reach their potential. We are *all* better off in the long run if our neighbors and others around the world are better off. It goes beyond a moral question of right or wrong. Well-fed people work more, work harder, work smarter, and are less likely to engage in illegal activities like stealing from their neighbors. The associated economic well-being raises the boat for everyone.

A big part of what this book is about is peeling away the distracting noise to reveal what we know, from a scientific perspective, about causes and solutions related to global food insecurity. Being at a major Land Grant University where scientists are studying issues of food production and markets provides us a unique perspective and position from which to bridge the gaps in knowledge and communication. No industry or private interest money was used to support this effort. All of the authors freely contributed their knowledge and efforts. We hope there is enough trust of the academic community remaining to convince everyone, regardless of which perspective they currently harbor, that we are sincere in providing the most object research we can.

Thus, we engage our readers with several overarching objectives. First, to define the tremendous scope and scale of food insecurity in the world. Second, to propel facts and data to the forefront to explain to everyone from every possible walk of life the root causes of food insecurity. Third,

to create space and a common base for more productive and inclusive dialogue for addressing food insecurity, and finally, to empower each of our readers to take personal action in addressing this tremendously crucial problem.

Defining the Problem

It's difficult even to wrap one's head around the current size of the world's human population (7.5 billion persons). If you are about 40 years old, this means that the world's population has roughly tripled since your parents were born. Moving beyond that to conceptualize how to feed all these people can become even more mind-boggling. Yet, strangely enough, food security is actually a rather simple equation. You need enough food (F) to feed all the people (P). If every person needs q amount of food, then food security means $F = q * P$.

With this in mind, below are some questions to ponder as you read through *How to Feed the World*:

1. The equation for food security is really simple. So, what then are the facets of agriculture, food, and society that are creating such a stir and complicate things?
2. What is the scale of food insecurity today and what does that look like for the future? Can you list and explain the various causes and root concerns?
3. Is population growth evenly spaced around the globe and, if not, what does this mean with respect to our ability to feed everyone?
4. The food security equation is simple, but producing enough food is more complicated! Key resources like soil and water are need in sufficient abundance. Where does our water come from and what threats exist to its quality and quantity?
5. Are all land and water resources equal when it comes to producing food? Should we or could we do more to protect the quantity and maintain the quality of these key resources?
6. What has happened to the precious resource of soil in the United States over the country's history and what are the current pressures threatening its use in agriculture?
7. What roles do farmers, scientists, and policy makers play in addressing food insecurity?
8. What human actions, policy constraints, technological challenges, and economic hurdles are impeding our progress toward greater food security?
9. What role does economics play in creating and solving food insecurity? And how might economic principles guide us at various scales (global, community, personal) toward courses of action?
10. What are the differences between food loss and waste? Why does this distinction matter and what impedes us from solving them?
11. Communication coupled with social and personal actions are powerful forces. What are their roles in creating food insecurity and in solving it?
12. What is a social license and how is it granted or revoked? What does it have to do with food insecurity?

13. Thinking of our simple equation, does everyone get “q” and only “q” to eat? From where does inequality arise?
14. What are the consequences of inequality both in quantity and quality of the food we have access to?

Thinking Beyond This Book

Something we stress in our book’s conclusion is the importance of everyone using their unique skills and talents to help address the challenge of food security both today and tomorrow. Once someone has read this book, we hope they will do something with the information. Information is power. Beyond just changing our personal behaviors, we have avenues of influence. These can be used to wield the power of information for change at various scales (global, community, personal). Once finished with the book, there are a range of questions you might consider or discuss that could guide you toward actions you might take.

With this in mind, below are some questions to ponder after you finish *How to Feed the World*. Questions are grouped into three categories related to your personal situation, particularly tough-to-solve problems and, lastly, the “big” questions.

Your personal situation:

1. When you shop for food, what things, other than price and convenience, matter to you?
2. What sorts of things would you be willing to pay higher prices for that could contribute to food security?
3. How do your preferences differ from those of your friends, family, and neighbors and what drives those differences?
4. Are you aware of efforts in your community to address food insecurity?
 - a. What are they?
 - b. How effective are they?
5. What changes can/will you make both in your day-to-day activities to help move the world toward greater food security?
6. What is the role of government at various levels in addressing food insecurity?
 - a. How will you share this concern with those in positions of power?

Sticky problems:

1. Debates about the causes of climate change continue. To what extent and in what ways does the “cause” of climate change matter with respect to the urgency of food security?
2. Social biologists have coined the terms psuedokinship and psuedospeciation. Psuedokinship is feeling more related to someone than we really are (i.e., adopting a

child or donating to a cause). Pseudospeciation is feeling less related to someone than we really are (i.e., justifying injustice on the basis of race, income, etc.).

- a. How do these concepts relate to food insecurity and the challenge of feeding the world?
- b. What can we do as individuals and as a society to overcome such impediments?
3. Given that food labels aren't big enough to list every aspect of how food is produced along its long supply chain, what can be done to restore trust in the food system?
 - a. Who are the players and what are their roles in creating greater trust in the food we eat?
4. What problems and/or solutions do you see arising from a multi-faceted approach to the food system?
5. What problems and/or solutions do you see arising from a unidimensional approach to the food system?
6. How does my country's stance on things like global trade, climate change, agricultural technology, reproductive rights, etc. affect food insecurity?
 - a. What other global scale impacts of the political economy have bearing on food insecurity?

The big questions:

1. What do you think the biggest challenge in feeding the world is?
 - a. How would you communicate this to a friend?
2. Is it possible to solve the problem of global food insecurity?
 - a. If yes, then why and what are the highest priorities?
 - b. If not, then what is the "optimal" level of food insecurity and what determines it?
3. If you could make one change to our food systems (short of granting everyone enough nutritious food) what would it be and why?