

# Preparing the Presentation

This chapter will provide **Tips for Communicating with Impact**, which will guide not only how you phrase your messages, but also how you prepare for media interviews, presentations, and any other dialogue on food <u>biotechnology</u>. You will see the Tips again and again throughout the *Guide*—they are that important!

In addition, "The Role of Biotechnology in Our Food Supply" presentation has been developed to help you discuss food biotechnology with the public. It communicates the latest information available, and is highly visual to help engage your listeners. In the Notes Pages of the PowerPoint, you will find key points for each slide to use during your presentation (see sidebar for website address).\*

A successful presentation, interview, or even a discussion about biotechnology over the dinner table isn't over until you've effectively addressed the questions that are raised. Thought provoking questions may be asked, and some may be emotionally driven or based on personal values and beliefs. Included in this chapter are a few suggestions for **Answering**Tough Questions, using the Tips for Communicating with Impact.

\*We understand you may prefer to use one or a few slides from "The Role of Biotechnology in Our Food Supply" presentation, adding them to your own presentation. If you choose to do so, we just ask that you please cite the IFIC Foundation as the source for the information, and that you not change the information as it appears on the slide.

# 3 PRESENTATION

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- PowerPoint Presentation available online only: www.foodinsight.org/foodbioguide.aspx

"There is now a clear scientific consensus that GE crops and ecological farming practices can coexist—and if we are serious about building a future sustainable agriculture, they must."

Pam Ronald, co-author, "Tomorrow's Table: Organic Farming, Genetics and the Future of Food." Economist Debate on Biotechnology, 2010.







## "I am a passionate believer in the power of biotechnology to boost food production and fight hunger and poverty in the developing world."

**Dr. Florence Wambugu**, Founder of Africa Harvest and plant pathologist. Submitted to the Committee on Agriculture United States House of Representatives on March 26, 2003.

# Tips for Communicating with Impact

# 1. Relate as a person, as well as a professional.

Talk about yourself as a person who has interests besides your career. This includes family, hobbies, interests, etc. Share your professional expertise, as well, as this is also a part of who you are as an individual with a story to share.

# 2. Show empathy for others and that you care about the issue.

Don't just recite facts and statistics. People need to know that you care, before they will care about what you know. Be honest and open, which will establish and support your credibility and likability with the audience.

# 3. Know your audience and prepare accordingly.

Make your information relevant to the audience and incorporate analogies that will resonate for them. Anticipate questions that your audience is likely to raise. Evaluate aspects of your presentation that could lead to questions and address these proactively by embedding the rebuttal information within your presentation.

# 4. Be straightforward, clear, and concise.

Answer the question without repeating negative terms or phrases. Correct misinterpretations of something you said or assumptions you don't share.

# 5. Be confident in handling questions.

Ensure that all discussants have an opportunity to participate by responding succinctly, breaking eye contact and moving away from the questioner, then asking if others have questions. Be prepared to ask and answer a question that relates to your key presentation points. Finally, know when it is time to end the question and answer period, encouraging those with more questions to talk with you after the session.



# Answering Tough Questions

Following are examples of some of the most common tough questions that arise about food biotechnology and suggested responses, along with examples to elaborate and add support to the responses. It is important that you tailor your response to your expertise, as well as personal experience and background. Science-based references have also been provided for those listeners who want to know the source(s) of your information.

Note: While the following questions are worded in a manner that may seem confrontational or challenging, it is important to remain focused on the Tips for Communicating with Impact. It is also important to avoid repeating inflammatory language.



## **TOUGH QUESTION:**

Isn't there an inherent danger in genetically altering foods to be something that nature could never create?

#### **RESPONSE:**

I appreciate your concern. While it may not seem natural, in reality, all crops have been "genetically modified" from their original state by domestication, selection, and traditional breeding over thousands of years. Farmers have practiced selective breeding, choosing plants and seeds with preferred characteristics, and saving them to plant for the next season. As more scientific know-how became available, farmers began cross-breeding plants to produce harvests that would have more desirable traits such as juicier, tastier varieties and better yields. Biotechnology is just the latest advance in breeding, an extension of the food development process that has given us new foods with appealing traits more precisely than can be done through traditional breeding.1

#### **EXAMPLE:**

Corn's wild ancestor is a Mexican grass called teosinte, with a tiny single row of just a dozen kernels wrapped inside a rock-hard casing. Selective breeding and cross-breeding over time has led to the development of modern maize with increased cob length and number of kernel rows, juiciness and size, amounts of starch, and the ability to grow in different climates and types of soil.<sup>2,3</sup>

## **TOUGH QUESTION:**

Shouldn't GMO foods be labeled so consumers know what's in their food?

#### **RESPONSE:**

Having access to sound nutrition and safety information about food is something I'm very interested in as a [parent/grandparent/someone concerned about my health]. Thankfully, the FDA has labeling requirements for all foods, including biotech foods. A biotech product must be labeled if its nutritional content or composition has changed or a food safety issue, like the potential for allergies, has been identified. Labeling would include all nutritional changes or food safety issues. Most consumers report being satisfied with this FDA policy, according to a survey by the International Food Information Council. Because foods produced through biotechnology are indistinguishable from conventional foods (unless they meet the above criteria), labeling of the production method used (e.g., biotechnology) could turn consumers' attention away from more important nutrition and food safety information on the label.<sup>4,5</sup>

#### **EXAMPLE:**

Producers may label a product as "non-GE" as long as the food does not contain any ingredients produced through biotechnology. Also, USDAcertified organic products contain 95% or more organic ingredients. By definition, organic products do not contain ingredients from genetic engineering; therefore, those wishing to avoid biotech foods have these options.



## **TOUGH QUESTION:**

Aren't you making exaggerated claims about the role of GM crops in alleviating world hunger?

#### **RESPONSE:**

While I wish there was a magic bullet to solving world hunger, we know there isn't. What we do know is that biotechnology is one tool, among others, that we can use to help address hunger and malnutrition around the world.

#### **EXAMPLE:**

It will be important to use all available food production techniques in order to meet the future world food needs of 9 billion by 2050. If technology is not leveraged to improve our efficiency and grow more food on the same amount of land, the increased demand will likely force prices up and lead to food shortages, especially in developing countries.<sup>6-8</sup>

#### **TOUGH OUESTION:**

Rather than helping the environment, won't biotechnology actually cause unforeseen environmental issues?

#### **RESPONSE:**

It sounds like protecting the environment is important to you. It's important to me, too, as well as the scientists who develop biotech seeds and the farmers who plant them. What we know about agricultural biotechnology is that it has helped reduce insecticide use and soil erosion, and improved water quality on farms, all of which are good for the environment. And by increasing production on arable land, there is less need to encroach on new territories, thus limiting the loss of biodiversity and natural habitats, such as rainforests, for wildlife.

#### **EXAMPLE:**

Biotechnology has already significantly reduced the release of greenhouse gas emissions from agriculture by reducing use of fossil fuels. In 2011, carbon dioxide reductions due to less fossil fuels used on farms were estimated to be 4.19 billion pounds, equivalent to taking 800,000 cars off of the road. In addition, with the use of rbST, a genetically engineered protein hormone given to dairy cows, five cows can produce the same amount of milk that once took six cows, using less feed and reducing greenhouse gas emissions.<sup>9,10</sup>



## **TOUGH QUESTION:**

Won't biotech crops contaminate organic and conventional crops, compromising seed integrity?

## **RESPONSE:**

While it seems like this would be an issue, seed producers have developed guidelines and best practices for quality control and seed purity to ensure this does not happen. The guidelines take into account the movement of pollen with wind and insects; how plants use pollen

to reproduce; possible presence of weeds; and equipment used to plant, harvest, and transport seeds. Farmers test crops regularly to ensure crop integrity. 11-13

#### **EXAMPLE:**

The co-existence of different kinds of crops has been accomplished through sensible farming practices such as growing different crops far enough away from each other, timing the planting of crops to maintain distinct growing seasons, and most importantly, communication between neighboring farmers.<sup>13</sup>

## **TOUGH QUESTION:**

Are there any long-term studies on the health effects of genetically modified foods? I'm concerned that these foods haven't been tested enough.

## **RESPONSE:**

It is understandable that people do not want to potentially put their families or themselves at risk. As a [parent/grandparent/someone who is concerned about my health], the safety of our food is of the utmost importance to me. What's reassuring to keep in mind is that people have been selectively breeding plants and animals pretty much since we moved out of caves, changing their genetic profile all the while, with no adverse health effects. On the contrary, our food is safer and more nutritious than it was 2,000 years ago.

There is broad scientific consensus that foods produced through biotechnology that are currently on the market are safe to eat. Food biotech products are more strictly regulated than any other food to date and, in nearly two decades of extensive governmental, academic, and industry oversight, not a single instance of harm





to health, safety, or the environment has ever been confirmed from any biotech crop placed on the market.14-17

#### **EXAMPLE:**

The international scientific community, including the World Health Organization, Food and Agriculture Organization of the United Nations, and American Medical Association have all examined the health and environmental safety of biotech crops and concluded that these foods are safe for human and animal consumption.14-17

## **TOUGH OUESTION:**

Isn't genetically engineered salmon harmful to our oceans and waterways and a threat to wild salmon?

#### **RESPONSE:**

I want to ensure nature is protected, just as you do. The fast-growing fish produced through biotechnology, if allowed onto the market, would be grown in inland tank facilities, with

multiple and redundant biological, physical, and environmental barriers to escape. As an added precaution, the salmon are all sterile females. They are raised far from native wild salmon and do not threaten wild salmon species. Land-based facilities also have a smaller environmental footprint than the ocean net pens used in conventional salmon farming.

The proposed biotech salmon is able to reach market size more quickly without affecting its other qualities, making it possible to grow more fish using less feed than conventional salmon. Currently awaiting commercial approval in the United States, it is a more environmentally sustainable way to farm salmon.18

The health benefits of eating fish high in healthy omega-3s fats, such as salmon, are well known. As salmon from natural sources declines, conventional farm-raised fish are already an important source of the hearthealthy salmon we currently enjoy.<sup>19</sup>



"Because there are so many hungry and suffering people, particularly in Africa, attacks on science and biotechnology are especially pernicious."

Jimmy Carter, Former President of the United States, Wall Street Journal, October 14, 2005.



#### **REFERENCES**

- 1. Wieczorek AM, Wright MG. History of agricultural biotechnology: How crop development has evolved. *Nature Education Knowledge*. 2012;3(10):9.
- 2. International Rice Research Institute and International Maize and Wheat Improvement Center. Teosinte—Maize's wild ancestor. Cereal Knowledge Bank website. 2007; <a href="http://www.knowledgebank.irri.org/ckb/extras-maize/">http://www.knowledgebank.irri.org/ckb/extras-maize/</a> teosinte-maizes-wild-ancestor.html.
- 3. Wang H, Nussbaum-Wagler T, Li B, Zhao Q, Vigourous Y, et al. The origin of the naked grains of maize. *Nature*. 2012;436:714-19.
- 4. McHughen, A. Labeling genetically modified (GM) foods. Agricultural Biotechnology website. June 22, 2008; <a href="http://www.agribiotech.info/details/McHugen-Labeling%20sent%20to%20web%2002.pdf">http://www.agribiotech.info/details/McHugen-Labeling%20sent%20to%20web%2002.pdf</a>.
- 5. International Food Information Council. Consumer Perceptions of Food Technology Survey. May 2012; <a href="http://www.foodinsight.org/Resources/Detail.aspx?topic=2012ConsumerPerceptionsofTechnologySurvey.">http://www.foodinsight.org/Resources/Detail.aspx?topic=2012ConsumerPerceptionsofTechnologySurvey.</a>
- 6. Alexandratos N, Bruinsma J. World agriculture towards 2030/2050: The 2012 revision. Food and Agriculture Organization of the United Nations. June 2012; <a href="http://www.fao.org/docrep/016/ap106e/ap106e.pdf">http://www.fao.org/docrep/016/ap106e/ap106e.pdf</a>.

- 7. Chassy B, Hlywka J, Kleter G, Kok E, Kuiper H, et al. Nutritional and Safety Assessments of Foods and Feeds Nutritionally Improved through Biotechnology. *Comprehensive Reviews in Food Science and Food Safety.* 2008;7:50-113.
- 8. Food and Agriculture Organization (FAO) of the United Nations. The State of Food Insecurity in the World. 2012; <a href="http://www.fao.org/docrep/016/i3027e/i3027e00.htm">http://www.fao.org/docrep/016/i3027e/i3027e00.htm</a>.
- 9. Brookes G, Barfoot P. GM crops: Global socio-economic and environmental impacts 1996-2010. PG Economics Ltd. May 2012; <a href="www.pgeconomics.co.uk/">www.pgeconomics.co.uk/</a> pdf/2012globalimpactstudyfinal.pdf.
- 10. International Service for the Acquisition of Agri-biotech Applications, SEAsia Center. Agricultural biotechnology (a lot more than just GM crops). August 2010; <a href="http://www.isaaa.org/resources/publications/agricultural\_biotechnology/download/agricultural\_biotechnology.pdf">http://www.isaaa.org/resources/publications/agricultural\_biotechnology.pdf</a>.
- 11. U.S. Department of Agriculture (USDA), Agricultural Marketing Service, National Organic Program. Organic Production and Handling Standards. Updated February 5, 2013; http://www.ams.usda.gov/AMSv1.0/nop.
- 12. American Seed Trade Association. Existing U.S. Seed Industry Production Practices that Address Coexistence. June 2011. <a href="http://www.amseed.org/pdfs/ASTA-CoexistenceProductionPractices.pdf">http://www.amseed.org/pdfs/ASTA-CoexistenceProductionPractices.pdf</a>
- 13. USDA Advisory Committee on Biotechnology and 21st Century Agriculture (AC21). Enhancing Coexistence: A Report of the AC21 to the Secretary of Agriculture. November 19, 2012; www.usda.gov/documents/ ac21\_report-enhancing-coexistence.pdf

- 14. U.S. Food and Drug Administration (FDA). Genetically engineered plants for food and feed. 2012; <a href="http://www.fda.gov/Food/FoodScienceResearch/Biotechnology/">http://www.fda.gov/Food/FoodScienceResearch/Biotechnology/</a>.
- 15. American Medical Association.
  Bioengineered (genetically engineered) crops and foods. 2012; https://ssl3.ama-assn.org/apps/ecomm/PolicyFinderForm.pl?site=www.ama-assn.org&uri=%2fresources%2fdoc%2fPolicyFinder%2fpolicyfiles%2fHnE%2fH-480.958.
  HTM.
- 16. World Health Organization. Modern Biotechnology, Human Health, and Development: An evidence-based study. 2005; <a href="http://www.who.int/foodsafety/publications/biotech/biotech\_en.pdf">http://www.who.int/foodsafety/publications/biotech/biotech\_en.pdf</a>.
- 17. FAO of the United Nations. FAO statement on biotechnology. 2000; http://www.fao.org/biotech/fao-statement-on-biotechnology/en/.
- 18. FDA, Center for Veterinary Medicine.
  AquAdvantage® Salmon Draft Environmental
  Assessment. May 4, 2012; http://www.
  fda.gov/downloads/AnimalVeterinary/
  DevelopmentApprovalProcess/
  GeneticEngineering/
  GeneticallyEngineeredAnimals/UCM333102.
  ndf
- 19. Kris-Etherton P, Harris W, Appel L. Fish Consumption, Fish Oil, Omega-3 Fatty Acids, and Cardiovascular Disease. *Circulation*. 2002;106:2747-57.