

## Genetically-Modified Foods (GMO)

### Background on crop biotechnology

- The term genetically-modified food (“GMO”) refers to foods produced using advanced plant breeding techniques. This process includes the selective transfer of specific genetic traits. This selective plant-breeding process allows for the transfer of preferred traits without having to transfer other, oftentimes unwanted traits. The most visible example of crop biotechnology is “Round-Up Ready” seeds, seeds that are resistant to glyphosate, the active-ingredient in “Round-Up”.
- Currently, the use of crop biotechnology is largely confined to field crop production. The vast majority of all field corn (88%), soybeans (94%), cotton (90%) and sugar beets (95%) are now grown from seed varieties that rely on crop biotechnology. Additionally, certain varieties of sweet corn (“BT sweet corn”), zucchini and yellow squash are also produced using genetically-engineered seed varieties<sup>1</sup>.
- Crop biotechnology has been an available tool for farmers for more than 20-years, and there have been no health incidents directly related to the use of the seeds since their introduction<sup>2</sup>.

### Safety

- There is no credible scientific evidence to support claims that foods produced using crop biotechnology are in any way unsafe or inferior.
- In fact, for more than 10-years, the US Food and Drug Administration (FDA), the agency charged with regulating the food supply, has consistently maintained that there is no material difference between food products produced using crop biotechnology and their non-GMO alternatives<sup>3</sup>.
- This opinion is shared by, among many others:
  - The American Medical Association
  - The World Health Organization
  - The National Academy of the Sciences<sup>4</sup>
  - US Agriculture Secretary Tom Vilsack, who has repeatedly reiterated his opinion that there is no enhanced risk associated with eating these products, including during his remarks at the American Farm Bureau Federation’s annual meeting in January
- Genetically-modified seed varieties are subject to evaluation to ensure that they are safe to eat before being approved as market-ready. This includes a three-tiered review process by USDA, USEPA and FDA<sup>5</sup>.

### Farmer Choice

- Farmers should have the freedom to make their own decisions about how best to manage their individual operations. Farmers who elect to use crop biotechnology do so for a variety of reasons (i.e. access to herbicide resistant varieties; decreased water use; decrease pest control inputs; ability to implement conservation tillage strategies; etc).
- Already, crop biotechnology has helped farmers to significantly reduce inputs. For example, a comprehensive 2013 study found that globally, crop biotechnology resulted in an overall reduction in pesticide use of 9% (976-million pounds) between 1996 and 2011<sup>6</sup>.
- Since these products have consistently been deemed materially-equivalent to their non-GMO alternatives, there is no justification to prohibit or malign the use of these seeds.

### Labeling

- Consumers seeking non-GMO food varieties already have access to these options through the “Certified Organic” program and other voluntary labeling programs (i.e. Non-GMO verified project)
- Mandatory labeling, particularly at the state-level, threatens to unduly stigmatize these products and raise costs for farmers, food wholesalers and retailers, and consumers. In fact, a study conducted when California was considering a ballot initiative to mandate labeling in 2012 found that such a labeling mandate would have resulted in added annual grocery costs of \$400 for the average household<sup>7</sup>.
- Voluntary labeling is the more appropriate approach, and should be considered at the federal level. Discussions about a uniform voluntary labeling program are already underway at the federal level.

### Feeding the World

- Crop biotechnology will continue to play a significant role in feeding the growing global population. Estimates suggest that by 2050, the global population will swell to nearly ten-billion<sup>8</sup>. As much as eighty-percent of the anticipated population growth is expected to occur in developing countries. Experts note that food production will need to double to meet the surge in the global population, particularly as access to arable land continues to decrease<sup>9</sup>.
- Advancements in crop biotechnology will serve as a vital component in meeting these future needs by enabling farmers to increase productivity in spite of a shrinking land base.

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<sup>1</sup> International Service for the Acquisition of Agri-Biotech Applications, 2011 Report

<sup>2</sup> Grocery Manufacturers Association. [www.factsaboutgmos.org](http://www.factsaboutgmos.org)

<sup>3</sup> Food Insight. “Fact Sheet: Benefits of Food Biotechnology”. May 13, 2013.

<sup>4</sup> [www.factsaboutgmos.org](http://www.factsaboutgmos.org)

<sup>5</sup> US Food and Drug Administration. “FDA’s role in regulating safety of GE foods”.

<sup>6</sup> “GM Crops: global socio-economic and environmental impacts 1996-2011”. Brookes and Barfoot. PG Economics Ltd., UK.

<sup>7</sup> Northbridge Environmental Consultants/California Legislative Analyst’s Office. July 18, 2012.

<sup>8</sup> United Nations. “World Population to Reach 9.6 Billion by 2050”. June 13, 2013.

<sup>9</sup> United Nations General Assembly Panel Discussion. October 9, 2009.