## Food Supply Changes Over Time

Life is change. And here's a brief (though not complete) overview of the changes in our food supply over the last few generations. The original infographic and text version are found at

http://growyourowngroceries.org/infographic-what-happened-to-our-food-a-timeline/

## **Text Timeline**

- 160,000 BC 1849: There are no events on this timeline before 1850, because there were few fundamental changes in our food supply before that time. Modern science tells us that man first lived in approx. 160,000 BC. He hunted and gathered and carried on primitively for 140,000 years or so, until the dawn of agriculture around 20,000 BC. Very little changed from that time to the last 150 years. We pick up here in 1850, when people were still growing their food with hand tools and animal-drawn plows, using natural fertilizers. Food was grown and consumed locally, with limited means for preservation and distribution.
- **1864**: Louis Pasteur heats his beer up in 1864, thereby inventing modern sterilization.
- 1865: Large scale pasteurization of milk begins.
- 1897: Catalytic hydrogenation allows scientists to start chemically prolonging the shelf left of oils and fats.
- 1902: New patents allow mass production of partially hydrogenated vegetable oil. *Image Credit: "Margarine"*. *Licensed under CC BY-SA 2.0, via Wikimedia Commons*
- 1905: The search for preservatives turns up Sodium Benzoate, which will be a major player in American food for the next century.
- 1911: Crisco introduced by Procter & Gamble. Yummy!
- 1912: Paul Sabatier receives Nobel Prize for work on hydrogenation.
- 1912: A&P opens the first grocery store, consolidating dry goods, a bakery, and produce under one roof. Piggly Wiggly followed in 1916. *Image Credit: Acme Grocery By November 2008er (Own work) CC BY-SA 3.0*, via Wikimedia Commons



- 1918: Fritz Haber wins a Nobel Prize for creating the synthetic nitrogen needed for the first chemical fertilizers.
- 1923: International Harvester's Farmall tractor paves the way for massive monocultures. *Image Credit: Richard Webb CC BY-SA 2.0, via Wikimedia Commons*
- 1924: Rudolph Steiner lectures European farmers on biodynamic agriculture.
- 1926: SPAM! Ground pork packed in gelatin. A sign of things to come. Image Credit: "Spam can" by Qwertyxp2000 Own work. Licensed under CC BY-SA 4.0, via Wikimedia Commons
- 1930: Frigidaire synthesizes freon, bringing safe electric refrigeration to consumers and retailers.
- 1933: The beginning of electric refrigeration coincides with the birth of the supermarket; self-service, single-serving meats, fish, produce, baked goods, and dry goods. *Image Credit: "Pickles (5194454932)" by Leslie Seaton from Seattle, WA, USA. Licensed under CC BY 2.0, via Wikimedia Commons*
- 1939: Weston A. Price publishes *Nutrition and Physical Degeneration*, based on his study of traditional diets.
- 1940: Albert Howard publishes *An Agricultural Testament*, the first publicly available work on organic growing. *Image Credit: By Ryan Franklin from Gilbert, AZ, US of A CC BY 2.0, via Wikimedia Commons*
- 1942: J.I. Rodale publishes Organic Farming and Gardening Magazine. Image Credit: By Shuvaev (Own work) CC BY-SA 3.0, via Wikimedia Commons
- 1943: Eve Balfour publishes *The Living Soil* in London. *Image Credit: By Ryan Franklin from Gilbert, AZ, US of A CC BY 2.0, via Wikimedia Commons*
- 1948: Paul Muller receives Nobel Peace Prize for developing DDT as an insecticide.
- 1950: Developments in antibiotics and manufactured feeds create the advent of the CAFO (Concentrated Animal Feeding Operation), which start with chickens but quickly add pigs and cows.
- 1951: The advent of electric refrigeration in railroad cars allows perishable goods to be distributed nationally.
- 1953: Swanson's TV Dinners hit the market to address the problem that cooking requires one to stop watching TV for a while. *Image Credit: Smile Lee at English Wikipedia CC-BY-SA-3.0*, via Wikimedia Commons

- 1958: Geigy labs produces Atrazine, an insecticide that increases corn production by about 5%, at the expense of some of the most fragile ecosystems on earth. *Image Credit: Ron Nichols / Photo courtesy of USDA Natural Resources Conservation Service, via Wikimedia Commons*
- 1959: Chicago's Glidden Company introduces the first soy additive for processed meat, the first of many fine "ingredients" to be added to beef.
- 1961: Kei Yamanaka creates the first food-grade High Fructose Corn Syrup, presumably because it's cheaper than sugar.
- 1962: Rachel Carson's *Silent Spring* jump starts the modern environmentalism movement, and leads the US to ban DDT.
- 1965: NutraSweet synthesizes aspartame, launching a fake sugar economy that will reach \$6B by 2015.
- 1970: Sysco Corporation IPO brings industrial food supply to American restaurants. *Image Credit: By Ildar Sagdejev (Specious) (Own work) CC BY-SA 4.0-3.0-2.5-2.0-1.0, via Wikimedia Commons*
- 1974: Rudolf Jaenisch creates first GMO animal, a lab mouse with a number instead of a name. Image Credit: By Whitehead inst (Sam Ogden/Whitehead Institute) CC BY-SA 3.0, via Wikimedia Commons
- 1974: John Jeavons publishes *How to Grow More Vegetables... Image Credit: By Spedona (Spedona) (Cliché personnel own work) CC-BY-SA-3.0, via Wikimedia Commons*
- 1976: USDA grants "Generally regarded as safe" label to high fructose corn syrup.
- 1979: Monsanto & Genentech collaborate on GMO bovine growth hormones to increase lactation in cows. *Image Credit: By 4028mdk09 (Own work) CC BY-SA 3.0, via Wikimedia Commons*
- 1980: McDonald's "borrows" Robert C. Baker's work and patents the Chicken McNugget. *Image Credit: By Fritz Saalfeld (Own work) CC BY-SA 2.5, via Wikimedia Commons*
- 1980: Whole Foods Market founded in Austin, TX. *Image Credit:* © *Jared Preston, via Wikimedia Commons*
- 1981: Mel Bartholomew's *Square Foot Gardening* brings intensive food production to back yards everywhere. *Image Credit: By Thomask0 (Own work) CC BY-SA 4.0, via Wikimedia Commons*
- 1983: Antibiotic-resistant tobacco becomes the first GMO plant. *Image Credit:* (c)2006 Derek Ramsey (Ram-Man) (Own work (Own Picture)) GFDL 1.2, via Wikimedia Commons

- 1984: Coke and Pepsi switch to High Fructose Corn Syrup in the US. *Image Credit: By Bene16* (Own work) CC BY-SA 3.0, via Wikimedia Commons
- 1988: Walmart opens its first Supercenter stores with full grocery departments. *Image Credit:* By Ben Schumin (Own work) CC BY-SA 3.0, via Wikimedia Commons
- 1994: Calgene's Flavr Savr tomatoes are the first GMO produce offered to US consumers. Image Credit: By Assianir (Own work) CC BY-SA 4.0, via Wikimedia Commons
- 1994: Monsanto's Roundup Ready GMO soybeans hit the agricultural market.
- 1996: Who can forget Dolly, the first cloned sheep? She lived half as long as a real sheep, but we remember her well. *Image Credit: Mike Pennington CC BY-SA 2.0, via Wikimedia Commons*
- 1999: Per capita consumption of High Fructose Corn Syrup in the US peaks at 64 lbs/year, about half of all the sugar we ate.
- 2000: European Union requires clear labeling of products containing GMOs. No comment from the FDA... Image Credit: By Orin Hargraves from Carroll County, MD, USA (Better Living through Genetic Modification) CC BY 2.0, via Wikimedia Commons
- 2000: European Union bans the use of rBST bovine growth hormones. No comment from the USDA... *Image Credit: By 4028mdk09 (Own work) CC BY-SA 3.0, via Wikimedia Commons*
- 2000: Golden rice is the first plant genetically modified to increase its nutritional value. Yay? *Image Credit: By Jfi7811 (Own work) CC BY 3.0, via Wikimedia Commons*
- 2001: Walmart becomes the top food retailer in the United States. *Image Credit: By Abras2010* (Walmart Uploaded by SchuminWeb) CC BY 2.0, via Wikimedia Commons
- 2003: Organic foods become the fastest growing segment in the US food industry, offered in 75% of supermarkets. *Image Credit: By Alanthebox (Own work) CC0, via Wikimedia Commons*
- 2004: EU bans Atrazine because of "ubiquitous and unpreventable water contamination." No comment from the USDA... Image Credit: By Jenni Jones from Lacey, Wa, United States (Crop Duster) CC BY-SA 2.0, via Wikimedia Commons
- 2005: 100 years after its inception, Sodium Benzoate comes under fire for causing cancer. The original 1993 study wasn't publicized until 2005. *Image Credit: By José Eugenio Gómez Rodríguez (Own work) CC BY-SA 3.0, via Wikimedia Commons*
- 2005: USDA deregulates GMO sugar beets. *Image Credit:* © *Jörgens.mi*, via Wikimedia Commons
- 2006: Michael Pollan publishes *The Omnivore's Dilemma*.

- 2007: Independent cinema joins the conversation with King Corn (2007), Food, Inc. (2008), and Fresh (2009).
- 2013: Marjory Wildcraft starts GrowYourOwnGroceries.org to help people learn to produce their own food and medicine.
- 2014: Walmart brings organic food to the masses, applying its proven strategy for destroying supply chains to the one we need most. *Image Credit: By Walmart from Bentonville, USA CC BY* 2.0, via Wikimedia Commons
- 2015: USDA approves Arctic apples for sale in the US, making Okanagan Specialty Fruits the "Johnny Appleseed" of GMOs. *Image Credit: By Apple and Pears Australia Ltd CC BY 2.0, via Wikimedia Commons*

## **Disease Statistics:**

\*All diabetes statistics from CDC – http://www.cdc.gov/diabetes/statistics/slides/long\_term\_trends.pdf \*\*All obesity statistics from NIH – http://www.niddk.nih.gov/health-information/health-statistics/Pages/overweight-obesity-statist