

undernutrition: A condition of insufficient nutrition in which people receive fewer calories than are needed on a daily basis for a healthy diet.

food security: The guaranteed availability of an adequate, safe, nutritious, and reliable food supply to all people at all times.

overnutrition: A condition of excessive food intake in which people receive more than their daily caloric needs.

malnutrition: The condition of lacking nutrients the body needs, including a complete complement of vitamins and minerals.

Green Revolution: An intensification of the industrialization of agriculture in the developing world in the latter half of the 20th century that dramatically increased crop yields produced per unit area of farmland. Practices include devoting large areas to monocultures of crops specially bred for high yields and rapid growth; heavy use of fertilizers, pesticides, and irrigation water; and sowing and harvesting on the same parcel of land more than once per year or per season.

sustainable agriculture: Agriculture that can be practiced in the same way and in the same place far into the future. Sustainable agriculture does not deplete soils faster than they form, nor reduce the clean water, genetic diversity, pollinators, and other resources essential to long-term crop and livestock production.

feedlots: A large indoor or outdoor pen designed to deliver energy-rich food to animals living at extremely high densities. Also called a factory farm or concentrated animal feeding operation.

aquaculture: The cultivation of aquatic organisms for food in controlled environments.

seed banks: A storehouse for samples of seeds representing the world's crop diversity.

colony collapse disorder: A mysterious malady afflicting honeybees, which has destroyed roughly one-third of all honeybees in the United States annually over the past decade. Likely caused by chemical insecticides, pathogens and parasites, habitat and resources loss, or combinations of these factors.

pest: A pejorative term for any organism that damages crops that we value. The term is subjective and defined by our own economic interests and is not biologically meaningful.

weed: A pejorative term for any plant that competes with our crops. The term is subjective and defined by our own economic interests, and is not biologically meaningful.

pesticides: An artificial chemical used to kill insects (called an insecticide), plants (called an herbicide), or fungi (called a fungicide).

neonicotinoids: A new class of chemical insecticide. They are sprayed on plants or used to coat seeds. When seeds are treated, the poison becomes systemic throughout the plant, dispersing through its tissues as it grows and making the tissues toxic to insects.

biological control: Control of pests and weeds with organisms that prey on or parasitize them, rather than with chemical pesticides.

Bacillus thuringiensis (Bt): A naturally occurring soil bacterium that produces a protein that kills many pests, including caterpillars and the larvae of some flies and beetles.

integrated pest management (IPM): The use of multiple techniques in combination to achieve long-term suppression of pests, including biological control, use of pesticides, close monitoring of populations, habitat alteration, crop rotation, transgenic crops, alternative tillage methods, and mechanical pest removal.

genetic engineering: Any process scientists use to manipulate an organism's genetic material in the lab by adding, deleting, or changing segments of its DNA.

genetically modified foods: Food derived from a genetically modified organism.

genetically modified organisms (GMOs): An organism that has been genetically engineered using recombinant DNA technology.

transgenic: Term describing an organism that contains DNA from another species.

transgene: A gene that has been extracted from the DNA of one organism and transferred into the DNA of an organism of another species.

biotechnology: The material application of biological science to create products derived from organisms.

meta-analysis: A scientific analysis that gathers together results from all scientific studies on a particular research question and statistically analyzes their data for significant patterns or trends that hold across all of them together.

precautionary principle: The idea that one should not undertake a new action until the ramifications of that action are well understood.

organic agriculture: Agriculture that uses no synthetic fertilizers or pesticides but instead relies on biological approaches such as composting and biological control.

farmers' markets: A market at which local farmers and food producers sell fresh, locally grown items.

community-supported agriculture (CSA): A system in which consumers pay farmers in advance for a share of their yield, usually in the form of weekly deliveries of produce.

life-cycle analysis: A quantitative analysis of inputs and outputs across the entire life cycle of a product—from its origins, through its production, transport, sale, and use, and finally its disposal—in an attempt to judge the sustainability of the process and make it more ecologically efficient.