

Differences Between Conventional and Organic Food in U.S.¹³

CONVENTIONAL	ORGANIC
SOIL	
Synthetic Fertilizers (Nitrogen–Phosphorus–Potassium).	No Synthetic Fertilizers.
	Compost, Manure Fertilizers, Plant Waste, & Cover Crops used as alternatives.
	Natural sodium nitrate restricted to 20% of total N requirement.
Crop rotation to reduce pests and disease and increase fertility optional.	Crop rotation required.
Sewage Sludge Allowed.	Sewage Sludge Prohibited.
SEEDS	
No prohibitions.	Organic seeds preferred unless they are unavailable. Genetically Engineered (GE) seeds prohibited.
PESTICIDES	
900 substances approved.	25 substances approved.
Most major classes of synthetic pesticides allowed.	Most classes of conventional pesticides except chlorine (e.g., bleach) prohibited.
.	Highly toxic nonsynthetics also banned, including arsenic, lead salts, rotenone, strychnine, and tobacco dust.
	Non-toxic methods such as mulch barriers and beneficial insects preferred. Least-toxic controls (e.g., elemental copper, boric acid, and alcohols) used as last resort under controlled conditions.
PESTICIDE BUFFERS & WILDLIFE PROMOTION	
No promotion of other wildlife.	Hedgerows required as haven for pollinators and beneficial insects.
GENETICALLY ENGINEERED (GE) CROPS	
Allowed. Most/all U.S. canola, corn, cotton, soy, and sugar beets are GE. A small percentage of apples, papayas, potatoes, and yellow squash are also GE.	Prohibited.
IRRADIATED FOOD	
Allowed.	Prohibited.
LIVESTOCK	
More than 550 drugs approved.	22 drugs approved.
Usually raised in large Concentrated Animal Feeding Operations away from pasture, fresh air, sunlight, space for exercise, and sometimes clean drinking water. Conventional and/or GE feed, external growth hormones, and non-therapeutic antibiotics to healthy animals common.	Raised with access to pasture, fresh air, sunlight, space for exercise, and clean drinking water, as well as shelter and shade when required for health. Grain, when used, must be certified organic. GE grains, external growth hormones, and non-therapeutic antibiotics to healthy animals prohibited.
Grain is a staple of diet, supplemented by other sources. Some of these include chicken litter, plastic pellets, and rendered meat.	Ruminants required to graze on pasture at least 120 days a year. Grass, pasture, and plant-based bedding must be certified organic.
Parasiticides common due to unsanitary conditions in Concentrated Animal Feeding Operations.	Parasiticides prohibited in slaughter stock and used only as a last resort otherwise. Grazing management, proper sanitation, and disease prevention are the preferred strategies.
No requirements for how young animals are raised.	Most livestock labeled organic must be raised organically for the last third of gestation. Poultry labeled organic must be raised that way from the 2nd day of life.
PROCESSED FOODS	
3,000–10,000 synthetic chemical preservatives, additives, processors, colorings, and flavorings can be added.	40 synthetic chemicals can be used in organic food processing, and cannot be used as preservatives, colors, or flavors.
	Small number of approved pesticides can be used as last resort, but must never come into contact with food.