

# What Do Natural, Organic, and Non-GMO Actually Mean?

Food package labels don't always mean what we think they mean. What is natural or all natural? Is organic 100% organic? What about GMO-free?

## The All Natural and Natural Label

The terms "all natural" and "natural" are misleading. A Consumer Reports survey found that the average consumer thinks these terms mean the food does not have artificial ingredients, GMOs, or pesticides, and that artificial materials weren't used during the processing of the food. Currently, the terms "all natural" and "natural" are not regulated in the United States except for rarely enforced rules within the meat and poultry industries.

To be labeled natural, meat and poultry is supposed to be minimally processed and not have any artificial ingredients; however, the term artificial is not clearly defined and the regulations are not well enforced by the USDA.

Outside of meat and poultry, there are no formal regulations for the use of the terms "all natural" and "natural". The FDA does have informal guidelines. Products labeled as natural should not contain anything artificial or synthetic, but again, there is no definition of what qualifies as artificial or synthetic. This means that just about anything goes, when it comes to "all natural." The question to ask is not, "What does all natural mean?" but rather, "What doesn't all natural mean?"

# Is “Organic” Food Really Organic?

When you think of “organic”, many people think it means 100% organic, pesticide free, all natural, and better than conventional. This is not correct. Organic today means a number of different things, depending on the situation, and many, if not most, items that carry the USDA Organic seal are not 100% organic.

Over the years, big agricultural and food companies have slowly degraded the term organic. By buying up smaller organic companies and lobbying the USDA, they have managed to chip away at the definition of organic foods. As the Cornucopia Institute pointed out, “In 1995 there were 81 independent organic processing companies in the United States. A decade later, Big Food has gobbled up all but 15 of them.”

Buyouts and mergers of food companies usually do not result in a label change. Conscientious consumers who want to avoid supporting big food companies end up giving their money to them anyway, unless they do some serious research to find out who owns the company. Just looking at the labels on the boxes is not enough.

## Origins of the Organic Label

In 1990, Congress passed the Organic Foods Production Act. This law regulated the organic food industry and established standards for what could be considered organic. One positive of the act was the establishment of the National Organic Standards Board. This board was to have fifteen members elected from different parts of the organic foods industry including four organic farmers or growers, three environmentalists or conservationists, three consumer or public interest advocates, two handlers or processors, one retailer, one scientist from a related field (toxicology, ecology, or biochemistry), and one USDA accredited certifying

agent. The make-up of the board was supposed to help avoid governmental bureaucratic appointees.

## **Organic Labeling With Packaged Foods**

Packaged foods that carry the USDA Organic seal are certified by the USDA to have at least 95% organic ingredients in them. Any ingredient listed specifically as organic is certified organic. Another category of organic is “made with organic ingredients.” Any packaged food that lists “made with organic” for specific ingredients must have at least 70% organic ingredients. No genetically modified ingredients are allowed in these products or ones with the USDA organic seal. Organic ingredients are to be made without synthetic fertilizers, ionizing radiation, or sewage sludge. The goal for organic production is to use the most natural, environmentally friendly methods as possible. This is not always done in practice.

## **What Does Organic Mean These Days?**

Organic does not mean pesticide free or chemical free. To be certified organic, a farmer must allow a previously non-organic field to be used without synthetic chemicals, pesticides, or GMOs for at least three years. Naturally based pesticides are used regularly. (A list of exempted chemicals is available on the USDA website). Though the USDA claims that these chemicals do not affect or alter the foods we eat, the fact remains that they are in many of our organic foods without our knowledge.

The list of approved pesticides and chemicals has grown over the years. With recent changes at the National Organic Standards Board, it is getting easier and easier for growers and producers to use more chemicals and pesticides in the

production of organic foods. For example, Driscoll's organic strawberries are not really organically produced.

Methyl bromide has been banned from agricultural use, with a few exceptions, due to its association with a rise in prostate cancer in farm workers. Yet, it is one of many chemicals approved for use in organic production by the National Organic Standards Board.

Since strawberries are extremely vulnerable to pests, methyl bromide is used as a soil fumigant to sterilize the soil before they are planted. While technically it's not sprayed directly on the fruit, it can still be detected in the strawberries that are grown in the sterilized soil.

## **What Chemicals Are Allowed In USDA Organic Certification**

Currently, the USDA has the National List of Allowed and Prohibited Substances that lays out which chemicals, pesticides, and other synthetic materials are or are not allowed in organic farming and production. In order for a company or farmer to use a synthetic ingredient in the production of organic foods, they have to petition the National Organic Standards Board for an exemption under what is called the Sunset Provision. This exemption would automatically run out after five years unless renewed by a two-thirds majority vote of the Board. This has changed. The rules now state that the exemptions are automatically renewed after five years unless there is a vote to remove the exemption.

These exemptions were initially granted to give an organic food producer time to find a natural alternative to conventional synthetic methods. They were never meant to become a permanent solution. Ever since big food companies have been quietly buying up the smaller organic companies,

they have been trying to relax the standards for organics as well. This latest turn of events with the exemption process is another step towards making the organic standards meaningless.

The National List of Allowed and Prohibited Substances is rather extensive and covers synthetic and non-synthetic materials. Some of these materials have restricted uses that are intended to keep them from contaminating crops though this doesn't always work in practice. For example, a USDA survey of pesticide use found that 20% of organically grown lettuce had pesticide residue on it.

A major type of pesticide found was spinosad, a pesticide sold by Dow Chemicals. This pesticide comes from a bacteria found in soil. Spinosad, along with pyrethrin (which comes from chrysanthemums) and azadirachtin (which comes from the Asian neem tree) are classified as slightly toxic by the EPA. These ingredients are allowed because they come from natural sources. Other restricted ingredients are limited to cleaning irrigation systems or equipment. Acceptable synthetic chemicals for use in the production of organic foods are listed below:

- Alcohols
- Ethanol
- Isopropanol
- Calcium hypochlorite
- Chlorine dioxide
- Sodium hypochlorite
- Copper sulfate
- Hydrogen peroxide
- Ozone gas
- Peracetic acid
- Soap-based algicide/demossers
- Sodium carbonate peroxyhydrate
- Newspapers or other recycled papers, without glossy or colored inks
- Plastic mulch and covers (petroleum-based other than

- polyvinyl (PVC))
- Biodegradable biobased mulch film
  - Ammonium carbonate
  - Aqueous potassium silicate
  - Boric acid
  - Copper sulfate
  - Elemental Sulfur
  - Lime sulfure- including calcium polysulfide
  - Oils, horticultural-narrow range oils as dormant, suffocating, and summer oils
  - Soaps, insecticidal
  - Sticky traps/barriers
  - Sucrose octanoate esters
  - Aqueous potassium silicate
  - Coppers, fixed – includes copper hydroxide, copper oxide, copper oxychloride
  - Hydrated lime
  - Hydrogen peroxide
  - Lime sulfur
  - Hydrated lime
  - Lime sulfur
  - Peracetic acid
  - Potassium bicarbonate
  - Streptomycin, for fire blight control in apples and pears only until October 21, 2014
  - Tetracycline, for fire blight control in apples and pears only until October 21, 2014
  - Aquatic plant extracts
  - Humic acids
  - Lignin sulfonate
  - Magnesium sulfate
  - Micronutrients, excepting those made from nitrates or chlorides
  - Soluble boron products
  - Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt

- Liquid fish products- can be pH adjusted with sulfuric, citric or phosphoric acid
- Vitamins B<sub>1</sub>, C, and E
- Sulfurous acid
- Ethylene gas
- Lignin sulfonate
- Sodium silicate
- Inerts of Minimal Concern from EPA List 4
- Inerts of unknown toxicity- from EPA List 3
- Hydrogen chloride

## **Do Companies Try To Get Away With Stuff?**

As the organic industry slowly shrinks, the main players try to get away with more and more. Companies are petitioning to add more synthetic chemicals to the National List of Allowed and Prohibited Substances every year. Since the format of getting chemicals on the list has changed, it's harder to get rid of them once they're approved. Slowly but surely, companies are doing whatever they can to cut corners and get away with whatever they can in pursuit of profits.

A major lawsuit was filed in New York earlier this year against Abbott Laboratories. The recent lawsuit against the manufacturer of Similac Advanced Organic Formula accuses the company of using 26 ingredients in their baby formula, including GM ingredients, that are not allowed in organic foods.

## **Labels for the Cosmetic Industry**

The organic and natural cosmetics industry is not regulated under the USDA Organic Program. As a result, there exists very little regulation and oversight. Some voluntary certification programs have been created, but these are not compulsory. The

problem with these voluntary certifications is that the standards vary with each and they're not regulated by the government like the USDA organic program. Some states, such as California, have implemented laws regulating the organic cosmetic industry.

Under the 2003 California Organic Product Act, any cosmetic sold in California that is promoted as organic must contain at least 70% organically produced ingredients. Consumers have the right to sue cosmetic companies under this Act. As of 2011, 34 cosmetic companies had been sued for false advertising.

## **Other Organic, Natural, Non GMO Labels**

Because of the costs and burdens that are part of the process of pursuing official USDA organic certification, many farmers pursue other options. Alternative certifications are growing in popularity, especially among smaller farmers. Some of the more popular ones include the following:

- Certified Naturally Grown
- Food Alliance Certified
- The Farmer's Pledge
- Certified Humane
- Animal Welfare Approved
- OWN Association- Organic, Wildcrafted, and Natural
- Ecocert
- Natrue

Certified Naturally Grown, Food Alliance Certified, and Farmer's Pledge are grass-roots organizations that are direct alternatives to the USDA organic certification yet show that their products are free of pesticides and synthetic materials.

Nearly 500 farmers from 47 states are members of Certified Naturally Grown, a non-profit, alternative, organic



certification program. This group strives to preserve high standards for organic farmers while removing the financial and logistical barriers small farmers can face with USDA certification.

## **Wildcrafted**

Wildcrafted plants are uncultivated plants gathered from their natural habitat. Care is taken to ensure sustainability, to take no more than the plant can give, to scatter a plant's seeds, etc. Wildcrafted is superior to organic if picked where there is no runoff from polluted water or contamination from exhaust. Unlike organic produce, wildcrafted produce is never sprayed—with anything. Wildcrafted foods are pure—as nature intended.

## **Kosher**

Kosher is a certification that ensures foods follow Jewish dietary guidelines. Though opinions may vary among rabbis about what counts as kosher or a kosher environment, a handful of nationally and internationally recognized kosher certifying agencies exist.

Generally, kosher means that both the food and the preparation methods meet certain standards. Kosher certification has nothing to do with whether or not a food is organically grown or is genetically modified. Simply put, kosher certification means the food and its preparation methods followed Jewish dietary laws and nothing more.

## **Non- GMO**

The Non-GMO Project is a program to label products that do not contain genetically modified ingredients. They are the only independent verification organization in North America and their symbol has become well known to those people who choose

to avoid GMOs.

The Non-GMO Project uses the European Union measurement to determine if a product qualifies as non-GMO under program standards. If a product is found to contain 0.9% or less of genetically modified ingredients, then it is certified as non-GMO.

## Conclusion

The various labels, while giving consumers some amount of assurance as to the quality of the product they purchase, are confusing. The only way to truly know the quality of the food you consume is to get to know your food growers at local farmers markets, or better yet, to grow your own food.

### Sources:

- [\*A Dirty Little Secret: Your "Organic" Strawberries Aren't Organic – Living Traditionally\*](#)
- [\*Certified Naturally Grown – Organic Producer Magazine\*](#)
- [\*Farming With Organic Certification – Organic Lifestyle Magazine\*](#)
- [\*Lawsuit Alleges Organic Infant Formula Contains Non-Organic Ingredients – Food Manufacturing\*](#)
- [\*Natural and Organic Cosmetics – Ecocert Group\*](#)
- [\*Natural Consumer Products Found Contaminated – Morocco Method Int'l\*](#)
- [\*Organic, All Natural, and Certified Naturally Grown Food Labels – Organic Lifestyle Magazine\*](#)
- [\*'Organic' alternatives: Many small, direct-sale farmers forego expense of USDA certification – The Columbian\*](#)
- [\*Organic Certification of Cosmetics – MakingCosmetics\*](#)
- [\*Organic Pesticides: Not an Oxymoron – NPR\*](#)
- [\*The National List Of Allowed and Prohibited Substances – U.S. Government Publishing Office\*](#)
- [\*The "Non-GMO Project Verified" Seal – NON GMO Project\*](#)
- [\*The USDA's Organic Deception – Farm Wars\*](#)

- [Thirty Four Cosmetic Companies Sued Over "Organic" Labels – FDA Law Blog](#)
- [Understand Our Natural Resources – OWN Association](#)
- [USDA Guts Organic Standards – Food Renegade](#)
- [What Does "Natural" Mean? – Mother Jones](#)
- [What's Required to Label Products "Kosher?" – The Nibble](#)
- [Who Owns Organic – Cornucopia Institute](#)
- [Who We Are – NATRUE](#)
- [Who Will Enforce the Organic Foods Production Act? – Organic Consumers](#)
- [Why We're Not Certified Organic \(We Think It's a Good Thing...\) – Annmarie Gianni Skin Care](#)
- [Wildcrafting: A "simple" life fraught with a host of complex ethical and practical considerations – Rodale Institute](#)