6 Food Industry Tricks You Don't Know About

If you shop in a typical US supermarket or big-box store, there may be more to your food purchases than meets the eye. Even the simplest of foods – apples, oranges, and chicken, for example – are commonly altered, treated with chemicals, or even injected with artificial coloring.

If you value pure *real* food, there's no getting around the fact that buying your food directly from a farm (or via a farmer's market), or, alternatively, growing it in your own backyard, are among the last remaining ways to secure such unadulterated food for your family.

6 Food-Industry Tricks That Might Shock You

TIME recently featured six food-industry tricks that *should* be common knowledge, but instead are mostly swept under the carpet. The food industry would rather you believe that your apple is just an apple, rather than a fruit with an added wax coating, for example – and that's only the tip of the iceberg.

As *TIME* reported:1

"…your food goes through a lot to make it to you, from being treated with antibiotics to getting a chlorine bath and a wax coating. Many of these steps are no big deal… but some are bad for your health and others huge money wasters."

1. Farm-Raised Salmon Is 'Colored' Pink

Wild salmon swim around in the wild, eating what nature programmed them to eat. Therefore, their nutritional profile is more balanced and complete, with micronutrients, fats,

minerals, vitamins, and antioxidants like astaxanthin, which gives salmon its naturally pink, or in the case of sockeye salmon, red-colored, flesh.

Farmed salmon, on the other hand, are fed an artificial diet consisting of grain products like corn and soy (most of which is genetically modified), along with chicken and feather meal, artificial coloring, and synthetic astaxanthin.

Ironically, synthetic astaxanthin is not approved for human consumption, but is permitted to be used in fish feed that humans ultimately eat. How rational is that?

Astaxanthin is added to turn their flesh pink – the color most people expect their salmon to be. Natural salmon get astaxanthin from green algae. However, farmed salmon, without these synthetic "pigment pellets" added to their diets, would be an unappetizing grey color.

There are other reasons to avoid farm-raised salmon (and farm-raised seafood of all kinds). For instance, levels of critical omega-3 fats may be reduced by about 50 percent in farmed salmon, compared to wild salmon, due to increasing amounts of grain and legume (e.g. soy) feed.

The other issue with farmed salmon is the high levels of contaminants. The Norwegian Department of Health has raised serious concerns about high levels of contaminants in farm-raised salmon. The contaminants in question originate in wild fish, courtesy of environmental pollution.

These toxic contaminants bind to the fat molecules in wild fish, and when these fish are ground up for use in fishmeal together with added high-fat fish oils, ultimately these molecules can enter your body where they bind to *your* cells.

In 2006, Russia actually banned Norwegian farmed salmon, claiming it contained excessive amounts of lead and cadmium (originating from the feed).

Norway is the world's top producer of farmed salmon. Last year, reports of farmed salmon toxicity actually spread through Norwegian news, and the Norwegian Health Department went on the record warning against eating too much farmed salmon due to contamination concerns.

2. Your Oranges Might Be Dyed

Why would orange producers go to the trouble of dying an orange *orange*? Because early in the season, some oranges might not be orange enough to attract consumers, so some Florida oranges are sprayed with Citrus Red No. 2.

This artificial dye is toxic to rodents at modest levels and caused tumors of the bladder and possibly other organs. It is not allowed to be used in California oranges.

Citrus Red No. 2 is not intended for consumption, which is why it's typically added to juice oranges. If your oranges are dyed, it should state it on the bag's label; be sure to avoid using the zest or peel of dyed oranges in your cooking.

3. *Many* Foods Are Dyed

It's not only oranges that may be dyed with artificial colors. Your wheat bread may contain caramel color, as might your roast beef deli meat. Pickles spears are often dyed yellow to make the look more appealing, as are countless other foods.

In their 58-page report, "Food Dyes: A Rainbow of Risks," CSPI revealed that nine of the food dyes currently approved for use in the US are linked to health issues ranging from cancer and hyperactivity to allergy-like reactions – and these results were from studies conducted by the chemical industry itself.2

For instance, Red # 40, which is the most widely used dye, may accelerate the appearance of tumors of the immune system in mice, while also triggering hyperactivity in children.

Blue #2, used in candies, beverages, pet foods, and more, has

been linked to brain tumors. And Yellow #5, used in baked goods, candies, cereal, and more, may not only be contaminated with several cancer-causing chemicals, but it’s also linked to hyperactivity, hypersensitivity, and other behavioral effects in children.

4. Produce Often Gets a Wax Coating

Some produce is waxed after harvest to withstand the long journey to market unscarred and to protect against the many hands that touch it. While the wax is supposed to be food-grade and safe, there are different types used:3

- Carnauba wax (from the carnauba palm tree)
- Beeswax
- Shellac (from the lac beetle)
- Petroleum-based waxes

The natural waxes are far preferable to the petroleum-based waxes, which may contain solvent residues or wood rosins. Produce coated with wax is not labeled as such, but organic produce will not contain petroleum-based wax coatings (although it may contain carnauba wax or insect shellac).

The other potential issue is that wax seals in pesticide residues and debris, making them even more difficult to remove with just water. To reach the contaminants buried beneath the surface of your vegetables and fruits, you need a cleanser that also removes the wax, which is what my fruit and vegetable wash does. Produce that is often waxed includes:

Cucumbers	Bell peppers	Eggplants
Potatoes	Apples	Lemons
Oranges	Limes	

5. Olive Oil Might Be Mixed with Cheaper Oils

Olive oil is a common target of food fraud, in which it is

deliberately adulterated at your expense, according to the U.S. Pharmacopeial Convention's (USP) Food Fraud Database. Even "extra virgin" olive oil is often diluted with other less expensive oils, including hazelnut, soybean, corn, sunflower, palm, sesame, grape seed, and walnut. But these other oils will not be listed on the label, nor will most people be able to discern that their olive oil is not pure. If you live in an area where olive oil is made, buying from a local producer is the ideal solution as it allows you to know exactly what's in your oil.

If not, try an independent olive oil shop that can tell you about the growers, or at least seek out a brand name that you trust to produce quality oil from your local supermarket. If at all possible, taste the oil before you buy it. While this won't necessarily be a guarantee of quality (especially if you're not skilled at picking out all the potentially subtle taste differences), it can help you to pick out the freshest-tasting oil possible (and if you open a bottle at home and find that it tastes rancid or "bad," return it to the store for a refund).

6. Chicken Is Given a Chlorine Bath

The US Department of Agriculture (USDA) permits poultry producers to put all the poultry through an antimicrobial wash, using chlorine and other chemicals to kill pathogens. We already have a problem with antibiotics causing antibiotic-resistant "super germs" when used in the animals' feed, and this likely makes the problem even worse. Workers in the plants have also reported health problems from the chemical washes, including asthma and other respiratory problems. Not to mention, it's unclear how much of the chlorine residue remains on the chicken when you eat it. In the European Union (EU), the use of chlorine washes is not only banned, but they won't even accept US poultry that's been treated with these antimicrobial sprays.

Germans Alarmed Over US ‘Chlorhuehnchen’ (Chlorine Chicken)

Both the USDA and the US Food and Drug Administration (FDA) claim that giving chickens a chlorine bath is safe, but that’s not enough to convince many Germans, who are now among the most vocal opponents to a free trade agreement between the US and EU. The so-called Transatlantic Trade and Investment Partnership, or TTIP, could generate an estimated $100 billion a year in economic growth for both the US and the EU, but many Germans believe a trade agreement with the US would compromise their food safety and quality. According to *Reuters*:4

“The phrase ‘Chlorhuehnchen,’ or chlorine chicken, has entered the parlance of everyone from taxi drivers to housewives since trade negotiations began a year ago. An Internet search for the term generates thousands of results, bringing up cartoons of animals dumped in vats of chemicals and stabbed with needles. A majority of Germans believe chlorine-washed chicken is a danger to human health despite its successful use in the United States to kill bacteria, according to survey by pollster Forsa.”

The US Food Industry Allows These Dodgy Practices That Are Banned in Europe

If it surprises you that the EU may be more forward thinking when it comes to food safety than the US, it shouldn’t. Thanks to a largely industry-beholden government and regulatory system, Americans are simply not being afforded many of the same protections given to Europeans. For instance, the EU has historically taken a strict, cautious stance regarding genetically modified (GM) crops, much to the chagrin of biotech giant Monsanto and in stark contrast to the US.

While GM crops are banned in several European countries, and all genetically modified foods and ingredients have to be labeled, the US has recently begun passing legislation that *protects* the use of GM seeds and allows for

unabated *expansion*, in addition to the fact that GM ingredients do not have to be labeled on a federal level. In another example, chicken litter, a rendered down mix of chicken manure, dead chickens, feathers, and spilled feed, is marketed as a cheap feed product for US cows. The beef industry likes it because it's even cheaper than corn and soy, so an estimated 2 billion pounds are purchased each year in the US.

However, any cow that eats chicken litter may also be consuming various beef products intended for chickens – raising concerns about Mad Cow Disease. And it's not only the spilled feed that's the problem; the infectious agent can also be passed through the chicken manure as well. In the US, the use of poultry litter in cow feed is unrestricted. Europe banned all forms of animal protein, including chicken litter, in cow feed in 2001. Want yet another example? The drug ractopamine is banned in 160 countries, including Europe, Taiwan, and China.

If imported meat is found to contain traces of the drug, it is turned away, while fines and imprisonment result for its use in banned countries. Yet, in the US an estimated 60-80 percent of pigs, 30 percent of ration-fed cattle, and an unknown percentage of turkeys are pumped full of this drug in the days leading up to slaughter because it increases protein synthesis. In other words, it makes animals more muscular… and this increases food growers' bottom line.

Adding insult to injury, up to 20 percent of ractopamine remains in the meat you buy from the supermarket, and this drug is also known to cause serious disability, including trembling, broken limbs and an inability to walk, in animals. It's also killed more pigs than any other animal drug on the market. While Europe has remained steadfast on its Ractopamine ban, including refusing imported meat treated with it, the US is actively trying to get other nations to change their minds and accept Ractopamine-treated pork.

What Are the Worst Processed Food Additives?

Processed foods can last a long time on the shelf without going bad, thanks to their chemical cocktails of preservatives and other additives. Unfortunately, their makers put a lot of money and time into strategies to increase shelf life and create attractive packaging, with little attention put on the foods' nutrient value or how it will actually detract from lasting health. Limiting your intake of processed foods is crucial to optimal health, but, if you choose to eat them, be aware of these worst offenders to avoid if you want to protect your health (many of these are already banned in other countries due to health risks):

Ingredient	Found in	Health Hazards
Coloring agents: blue #1, blue #2, yellow #5, and yellow #6	Cake, candy, macaroni and cheese, medicines, sport drinks, soda, pet food, and cheese	Most artificial colors are made from coal tar, which is a carcinogen
Olestra (aka Olean)	Fat-free potato chips	Depletion of fat-soluble vitamins and carotenoids. Side effects include oily anal leakage

Brominated vegetable oil (aka BVO)	Sports drinks and citrus-flavored sodas	Competes with iodine for receptor sites in the body, which can lead to hypothyroidism, autoimmune disease, and cancer. The main ingredient, bromine, is a poisonous, corrosive chemical linked to major organ system damage, birth defects, growth problems, schizophrenia, and hearing loss
Potassium bromate (aka brominated flour)	Rolls, wraps, flatbread, bread crumbs, and bagel chips	See bromine above. Associated with kidney and nervous system disorders, gastrointestinal discomfort
Azodicarbonamide	Breads, frozen dinners, boxed pasta mixes, and packaged baked goods	Linked to asthma
BHA and BHT	Cereal, nut mixes, gum, butter, meat, dehydrated potatoes, and beer	BHA may be a human carcinogen, a cancer-causing agent. BHT can cause organ system toxicity
Synthetic hormones: rBGH and rBST	Milk and dairy products	Linked to breast, colon, and prostate cancers

Arsenic	Poultry	EPA classifies inorganic arsenic as a “human carcinogen”

Beat the Food Industry at Their Own Game: Choose Real Food

When it comes to staying healthy, avoiding processed foods and replacing them with fresh, whole foods is the “secret” you’ve been looking for. Additionally, the more steps your food goes through before it reaches your plate, the greater the chance of contamination, alteration, and adulteration becomes. If you are able to get your food locally, you eliminate numerous routes that could expose your food to contamination with disease-causing pathogens and other intentionally added (yet still disease-causing) additives. Quite simply, swapping your processed food diet for one that focuses on fresh whole foods may seem like a radical idea, but it’s a necessity if you value your health.

And when you put the history of food into perspective, it’s actually the processed foods that are “radical” and “new.” People have thrived on vegetables, meats, eggs, fruits and other whole foods for centuries, while processed foods were only recently invented. If you want to eat healthy, I suggest you follow the 1950s (and before) model and spend quality time in the kitchen preparing high-quality meals for yourself and your family.

If you rely on processed inexpensive foods, you exchange convenience for long-term health problems and mounting medical bills. It’s also important to source your food directly from high-quality, local sources so you can determine that your chicken is not doused in chlorine and your apples are not coated in wax, for instance. For a step-by-step guide to make this a reality in your own life, simply follow the advice in

my optimized nutrition plan along with these seven steps to wean yourself off processed foods.