

## **Honey Laundering: Is Your Honey Real or Fake?**

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December 06, 2023

#### STORY AT-A-GLANCE

- Honey is the third most-faked food in the world. Tests have revealed 50% to 70% of all
   U.S. honey is fake or adulterated
- > True Source Honey, a honey certification group, was created by the businesses it certifies. According to a class action complaint, True Source Honey is being used by these businesses "to fraudulently control the market, sell fake honey at substantially lower prices than honest beekeepers, and divert sales, revenue, and profits to themselves"
- > Honey can be faked and adulterated in many different ways. Common strategies include diluting the honey with sugars or syrups, or feeding corn syrup to the bees rather than allowing them to forage for pollen
- > Inexpensive, low-grade honey can also be filtered and then dusted with high-grade pollen from another location to obscure its origin. Oftentimes, honey labeled as "local" is, in fact, cheap honey sourced overseas
- > To ensure authenticity, buy honey from a local beekeeper. You'll typically find them at farmers markets. Also, use your senses. Many adulterated honeys will lack the floral notes found in pure honey. Adulterated honey may also have a lingering aftertaste, or will simply taste too sugary, and is far stickier and transparent than real honey

Remarkable as it may seem, food fraud is a huge business and a rampant problem.

Award-winning journalist and best-selling author Larry Olmsted revealed many of the

food fraud tricks in his 2016 book, "Real Food/Fake Food: Why You Don't Know What You're Eating and What You Can Do About It."

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For example, tests have revealed anywhere from 60% to 90%<sup>3</sup> of the olive oils you find in grocery stores and restaurants are adulterated with cheap, **linoleic acid**-rich seed oils that are pernicious to health in several ways.

### **Most Honey on the Market Is Not Real Honey**

Another food that is frequently adulterated is honey. Tests have revealed 50% to 70% of all U.S. honey is fake or adulterated,<sup>4,5</sup> and according to a comprehensive review of fake foods published in the Journal of Food Science,<sup>6</sup> honey is the third most-faked food in the world. As reported by Better Homes & Gardens, October 2, 2023:<sup>7</sup>

"You probably weren't aware that much of the honey found on grocery store shelves is actually fake — in some cases, it contains little to no actual honey. In fact, honey is one of the most faked foods found in our food supply today ...

Honey can be adulterated in many ways — from treating it with heat to filtering it to diluting it with modified additives like sugar or syrup. It can be harvested too early as plant nectar, doctored up, and sold falsely as the end product, honey.

It can even be labeled as local when it's really sourced internationally. Other particularly savvy honey-making imposters go as far as to feed bees sugar and syrup to produce honey, rather than natural foraging — severely impacting the product's nutritional benefits ...

When we consume fake honey — made from refined sugar or high fructose corn syrup — we're not only missing out on all of these therapeutic benefits, but we're actually consuming a highly inflammatory food, essentially causing the opposite effect on our health. Also, if adulterated honey is treated with heat or filtered, many of the compounds that make honey so healthful can be lost."

### **Beware of Fake Manuka Honey**

When it comes to Manuka honey, prized for its superior health benefits, both topically and internally, only one in seven products tested during a 2014 investigation turned out to be the real thing, that is less than 15%!

The nectar from manuka flowers contains dihydroxyacetone, a precursor to methylglyoxal (MGO), an antimicrobial compound not found in most other honey. The presence of MGO is credited for much of manuka honey's medicinal prowess, which includes the ability to combat complex antibiotic-resistant infections.

If you're buying fake Manuka, you're not only losing out on health benefits, but could worsen your problem as highly processed sugar from high fructose corn syrup feeds bacteria that authentic Manuka would suppress. You're also burning a big hole in your pocketbook, as Manuka honey is among the most expensive honeys in the world.

#### The Fraud Runs Deep

Class action lawsuits filed over the last five years reveal the "honey laundering" scheme runs deep — all the way to True Source Honey, one of the largest honey certification groups that is supposed to confirm the source and guarantee the quality of honey. 10

As noted by the Resnick Center for Food Law & Policy,<sup>11</sup> the drawback that allowed for this is that True Source was founded by the very businesses it certifies.

According to a class action complaint filed in 2021, these honey businesses are "using True Source to fraudulently control the market, sell fake honey at substantially lower prices than honest beekeepers, and divert sales, revenue and profits to themselves."

12

"True Source is not the watchdog of the honey industry it claims to be, but the mechanism that makes the conspiracy tick," the Resnick Center for Food Law & Policy writes.

"The complaint alleges that True Source purposely fails to monitor its members for compliance with its own certification program, and that the True Source Certified Standard is designed to allow True Source members to a proliferate cheap and adulterated honey throughout the United States.

Until a recent surface-level revamp in this standard, True Source Certified companies only used outdated and ineffective testing methods that are incapable of detecting all methods of honey adulteration and fraud.

True Source intentionally uses these outdated and ineffective testing methods to bypass fraud detection. When syrup is detected, True Source turns a blind eye.

The complaint further alleges that although it purports to be a watchdog of the honey industry, True Source is fully aware that its Certification and Participation program is being used by importers and packers to misrepresent the authenticity of their honey products."

#### **How Honey Is Faked**

Honey can be faked and adulterated in a variety of different ways. Here's a summary breakdown of some of the most common methods:13

More often than not, the honey is simply diluted with different sugars and/or syrup made from rice, beet or high fructose corn syrup, thereby forfeiting any health benefits. In rare cases, these additives can also cause the honey to ferment, creating alcohol levels that could be dangerous for children.

Honey is sometimes heated to high temperatures to avoid crystallization and make it easier to manipulate, yet is still sold as "raw." Heating above 100 degrees Fahrenheit destroys the beneficial enzymes, effectively eradicating expected health benefits.

Some honey producers will extract the honey early, when it's a nectar product and not yet finished honey, and then machine dry it. As a result, it won't have the health benefits.

Unscrupulous honey producers will feed high fructose corn syrup to the bees rather than allowing them to forage for pollen.

Honey is oftentimes labeled as "local" when, in fact, it comes from overseas. So, if you're using it to address seasonal allergy symptoms, it may not work.

Honey can be filtered through aliphatic resin, a rinsing technology that removes contaminants. This method obscures the origin of the honey and removes antibiotics, pesticides and undesirable flavors present in the raw product.

This method is typically used on low-grade unpalatable honey like Indian Gum honey, which cannot be sold due to its disgusting taste and smell. Once dissolved in water and run through this process, you end up with an unscented light-colored amber honey that can be sold. However, the technology also eliminates the enzymes and chemicals responsible for honey's health benefits.

Inexpensive, lower-grade honey can be filtered and then dusted with high-grade pollen from another location to obscure its origin. The end product also may not have the health benefits assumed.

## **Sweetwater Science Specializes in Honey Testing**

With fraud so rampant, how can you be sure you're getting real, unadulterated, unfiltered honey? The only way to be absolutely certain that honey hasn't been adulterated would be to test its chemical composition, which is something Sweetwater Science Labs<sup>14</sup> specializes in. As reported by Vice:<sup>15</sup>

"As an independent and ISO accredited lab, Sweetwater Science is up for hire by anyone who wants to test honey — beekeepers, consumers, packers, and

lawyers ... Even people off the street who want their honey tested can bring them their samples, which happens more than you might think.

[Jim] Gawenis is a scientist — he doesn't sell honey or import it. He doesn't even certify the honey he tests as good or bad, either; he analyzes it with Bruker's NMR food screener, and provides the data to his clients. From there, they can do what they like with the information."

Unfortunately, Sweetwater Science doesn't publish results on their website, but the Vice article includes the results of several honeys brought for testing by the author, Shayla Love. Some of the results are surprising indeed.

A bear-shaped bottle of Great Value Clover Honey from Walmart tested pure, with no sign of adulteration of any kind, whereas a jar of Tennessee "raw, local sourwood honey" turned out to be sourced from Vietnam and contained added non-honey sugars, and a bottle of Whole Foods 365 Organic honey had been adulterated through heating.

# **How to Ensure You're Getting Real Honey**

Most people probably aren't willing to go quite as far as lab testing their honey. In this case, the commonsense strategy is to buy honey from a local beekeeper. You'll typically find them at farmers markets.

66 Many adulterated honeys will lack the floral notes found in pure honey. Adulterated honey may also have a lingering aftertaste, or simply taste too sugary, and is far more sticky and transparent than real honey. 99

Also, use your senses when selecting honey. Many adulterated honeys will lack the floral notes found in pure honey. Adulterated honey may also have a lingering aftertaste, or will simply taste too sugary.

Real honey also isn't very sticky. Rather, it tends to have a balm- or cream-like consistency when rubbed between your fingers. If it's excessively sticky, chances are refined sugars or syrups have been added.

Real, raw, unfiltered honey also tends to have a cloudy appearance, and may have remnant honeycomb particles or flecks of pollen in it. Over time, it may also begin to crystallize. If it never crystallizes, it might not be pure. If you're buying Manuka honey, you'll want to verify the MGO, NPA and UMF content.<sup>16</sup>

- MGO (methylglyoxal) is a measurement of the main ingredient, which has a direct correlation to its antibacterial properties. The higher the MGO, the higher the potency in terms of healing ability. All genuine Manuka honey produced in New Zealand is tested for MGO.
- NPA (non-peroxide activity) refers to its antibacterial activity and is equivalent to the UMF rating. For example, an MGO of 550 equates to an NPA of 15, and many companies will list both on the label.
- UMF (unique manuka factor) is a trademark registered and controlled by the UMF Honey Association, which provides some assurance of both quality and genuineness. The UMF correlates to the MGO, but also includes other quality and authenticity checks.

#### Sources and References

- 1, 3 Amazon Real Food/Fake Food: Why You Don't Know What You're Eating and What You Can Do About It by Larry Olmsted 2016
- <sup>2, 8</sup> Forbes July 15, 2016
- 4 Insider September 26, 2020
- 5, 10, 13, 15 Vice March 6, 2020
- <sup>6</sup> Journal of Food Science November 9, 2011; 76(9): R157-R163
- <sup>7</sup> Better Homes & Gardens October 2, 2023
- <sup>9</sup> True Source Honey
- 11, 12 Resnick Center for Food Law & Policy, Legal Recourse for Self-Regulation in the Honey Industry June 9, 2021
- <sup>14</sup> Sweetwater Science Labs
- <sup>16</sup> Bees and Trees August 18, 2023