

Bottled Water vs. Tap

Amid conflicting statements regarding the safety of bottled water, consumers are left to sift through vast amounts of information trying to determine what's fact, what's fiction and who's looking out for their best interest. Bottled water manufacturers and respective trade organizations such as the International Bottled Water Association (IBWA) and the European Bottled Water Association (EBWA)

While both sides of the bottled/tap battle continue trying to inform and ultimately win the consumer over, a few facts cannot be overlooked. Regardless of how a consumer obtains drinking water, both bottled and tap must draw from the same available global freshwater sources. Despite the information with which consumers are presented, ultimately the decision is theirs. When purchasing bottled water, knowing

identify the source and treatment method (see "Types of Water" sidebar) for all bottled water produced and/or sold in the United States regardless of where it was purchased.

Where the Confusion Begins

If determining the types of bottled water is easy, then where does the confusion begin? Perhaps it is the simplicity of water that causes the consumer to question the quality of tap and bottled water.

The bottled water industry has experienced tremendous growth—becoming a \$22 billion-a-year business. Some market analysts even predict that by 2004 bottled water consumption in the United States will surpass beer, milk and coffee to become the second most consumed beverage behind soft drinks. Public confidence in tap water has been somewhat eroded due to images of polluted water sources, a lack of environmental protection and weak enforcement of regulations coupled with issues of health and aesthetics. Therefore, some consumers have sought out alternative sources of drinking water by turning to bottled water. The FDA Standards of

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release information attesting to the safety and purity of bottled water. Activist groups such as the World Wildlife Fund (WWF) and Natural Resources Defense Council (NRDC) continuously perform studies and release information to discredit that information released by the bottled water industry.

what you are getting requires some research and understanding.

Determine What is Best

Understanding the bottled water industry must begin with a basic knowledge of the several types of bottled water available. The U.S. Food and Drug Administration (FDA) has established standards to

Types of Water

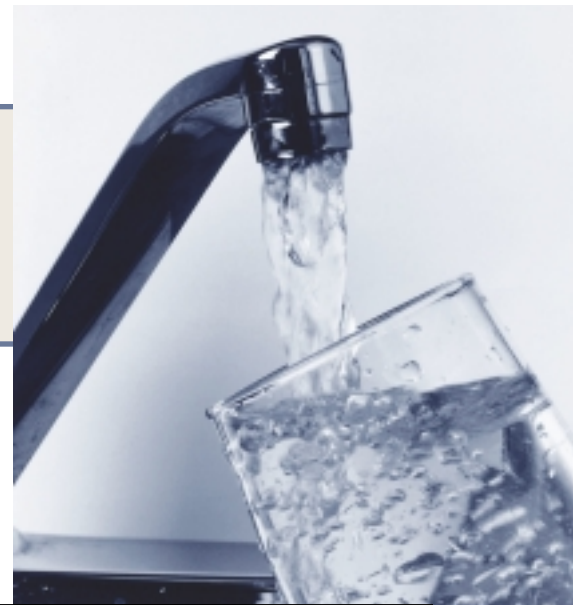
- **Artesian Water**—Water from a confined aquifer that has been tapped and which the water level stands at some height above the top of the aquifer.
- **Fluoridated Water**—Water containing fluoride added within the limitations established in the Code Federal Regulations. Includes water classified "for infants" or "nursery".
- **Ground Water**—Water from a subsurface saturated zone that is under a pressure equal to or greater than atmospheric pressure.
- **Mineral Water**—Water containing at least 250 ppm (parts per million) total dissolved solids and coming from a source tapped at one or more bore holes or springs and originates from a geologically and physically protected underground water source. No minerals may be added to this water.
- **Purified Water**—Water produced by distillation, deionization and reverse osmosis or other suitable processes. Purified water also may be referred to as "demineralized water."
- **Sparkling Water**—Water containing the same amount of carbon dioxide that it had at emergence from the source. The carbon dioxide may be removed and replenished after treatment.
- **Spring Water**—Water coming from an underground formation from which the water flows naturally to the Earth's surface.
- **Sterile Water**—Water that meets the requirements and "sterile tests" in the United States Pharmacopoeia.
- **Well Water**—Water taken from a hole tapping, etc. ... The hole may be bored, drilled or otherwise constructed in the ground.

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Dealers should educate consumers that are seeking alternatives to bottled water on the importance of POU/POE for their tap water.



Identity requires bottled water to be accurately labeled, creating national standardized bottled water labels.

Public concern over the quality of bottled water may have begun when consumers realized that it's not necessarily cleaner or safer than most tap water. Bottled water has incidence for contamination not unlike tap water. Municipal water is even the source used for 25 percent of all the bottled water sold in the United States labeled and sold as "purified" or "drinking water." If the water is not significantly altered, the bottled water must be labeled as coming from a municipal source. Bottled water labels also may be misleading, despite FDA regulation to standardize. The pristine images that allude to mountain and snow on one bottled water could cause a consumer to subconsciously think that the bottled water is from a natural mountain spring when in fact it is processed at a municipal water source.

Is the Grass Always Greener?

Since both tap and bottled water have the perceived potential for contamination, consumer education of the regulations governing the bottled water industry becomes important.

Bottled water in the United States is regulated on three levels: federal, state and trade association. Together these regulations offer consumers assurance that the bottled water they purchase is stringently regulated, tested and of the highest quality. In fact, in the United States, bottled water is one of the most highly regulated food products.

FDA regulation of bottled water requires every product to be fully tested annually for chemical, physical and radiological contaminants. Therefore, the FDA establishes quality standards for the bottled water product and good manufacturing practices for the bottler. The National Sanitary Foundation (NSF) Bottled Water Certification Program verifies that bottling facilities and their products meet the FDA regulatory requirements. The NSF testing program provides for annual unannounced plant inspections and includes extensive annual product testing for more than 160 chemicals and radiological and microbiological contaminants.

State regulatory requirements of the bottled water industry include inspecting, sampling, analyzing and approving sources of water and laboratory certification. Under the Federal Good Manufacturing Practices (GMPs), only approved sources may be

used to supply a bottling plant. State regulations complement federal regulations by certifying testing laboratories. In addition, the state performs unannounced plant inspections and some states even perform annual inspections.

Membership into IBWA is contingent on a bottler's agreement to annual, unannounced plant inspection administered by an independent, internationally recognized third-party inspection organization. Inspection typically includes auditing quality and

testing records, reviewing all plant areas from source to finished product and checking compliance with FDA, GMPs and any state regulations.

However, a four-year study conducted by the NRDC revealed that bottled water regulations are inadequate to assure consumers of purity or safety despite federal and state bottled water safety programs. At the national level, water that is packaged and sold in the same state is exempt from FDA regulation.

In addition, roughly one out of five states do not regulate water sources.

The NRDC further claims that when bottled water is covered by FDA regulation, it is subject to different testing and purity standards than tap water (i.e., bottled water is required to be tested less frequently than tap water for bacteria and chemical contaminants). Where *E. Coli* or fecal coliform contamination cannot be detected in tap water, small amounts are allowed in bottled water

under current regulation. Furthermore, tap water regulation requires disinfection and testing for parasites such as *Cryptosporidium* or *Giardia*; bottled water does *not* have the same requirements.

Serving the Consumer

When it comes to choosing a drinking water source, bottled water or tap water, the decision is highly dependent on consumer culture, consisting of both their attitude and behavior. While marketing surveys are used to track consumer behavior, attitudes—the psychological reason why consumers do what they do—are very difficult to grasp.

treatment options for the disinfection, filtration and purification of tap water.

Unlike other utilities, water is the only one that has the power to impact public health since a person can live a month without food but only about one week without water. In the United States, there currently are 3,000 natural gas utilities, 3,000 electric utilities and 54,000 community drinking water systems. Whether these domestic water systems experience contamination or attacks that affect the drinking water supply, bottled water can be a safe alternative in emergency situations. Statistically,

Regardless of whether consumers choose the bottle or tap, the continued availability of drinking water supplies is dependent on the protection and improvement of source water.

Modern bottled water consumers are immersed in a market that has experienced drastic advancements over the past 30 years. What once started as a business delivering water coolers and five-gallon bottles to the home and office, is now a significant retail business, offering a wide variety of single-serving portable water bottles. But for those consumers who don't care to spend anywhere from 240 to 10,000 times more per gallon (verses tap water) on bottled water, a dealer can offer point-of-use and point-of-entry in-home water

consumers continue to drink bottled water for reassurance long after tap water emergencies.

Drinking water shortages worldwide and drought conditions throughout much of the United States threaten our natural ecosystem and consequently affect source water supplies. As it is, only 1 percent of the world's fresh water is readily available for human consumption. So, regardless of whether consumers choose the bottle or tap, the continued availability of drinking water supplies is dependent on the protection and improvement of source water.

A decision by definition is a determination arrived at after consideration, and a motive is something that causes a person to act. Adequate information exists for a consumer to consider and then determine their choice of drinking water. Perhaps what bottled water manufacturers and activist groups fighting for the preservation of tap water usage overlook is that the real power lies with the consumer. Only he can make the choice. It is up to the water treatment/bottled water dealer to educate him regarding his bottled water and POU/POE treatment options. **WQP**

About the Author

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