

# American industry's thirst for water: First study of its kind in 30 years

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Credit: AI-generated image ([disclaimer](#))

How many gallons of water does it take to produce \$1 worth of sugar, dog and cat food, or milk? The answers appear in the first comprehensive study in 30 years documenting American industry's thirst for this precious resource. The study, which could lead to better ways to conserve water, is in ACS' *Environmental Science & Technology*.

Chris Hendrickson and colleagues note in the new study that industry (including agriculture) long has been recognized as the biggest consumer of water in the United States. However, estimates of water consumption on an industry-by-industry basis are incomplete and outdated, with the last figures from the U.S. Census Bureau dating to 1982.

They estimated water use among more than 400 industry sectors — from finished products to services — using a special computer model. The new data shows that most water use by industry occurs indirectly as a result of processing, such as packaging and shipping food crops to the supermarket, rather than direct use, such as watering crops. Among the findings for consumer products: It takes almost 270 gallons of water to produce \$1 worth of sugar; 200 gallons of water to make \$1 worth of dog and cat food; and 140 gallons of water to make \$1 worth of milk. "The study gives a way to look at how we might use water more efficiently and allows us to hone in on the sectors that use the most [water](#) so we can start generating ideas and technologies for better management," the scientists note.

**More information:** "Direct and Indirect Water Withdrawals for U.S. Industrial Sectors", *Environmental Science & Technology*.

Provided by American Chemical Society

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