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Agriculture Has Problems That Might Be Bigger Than Blockchain





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Food & Drink

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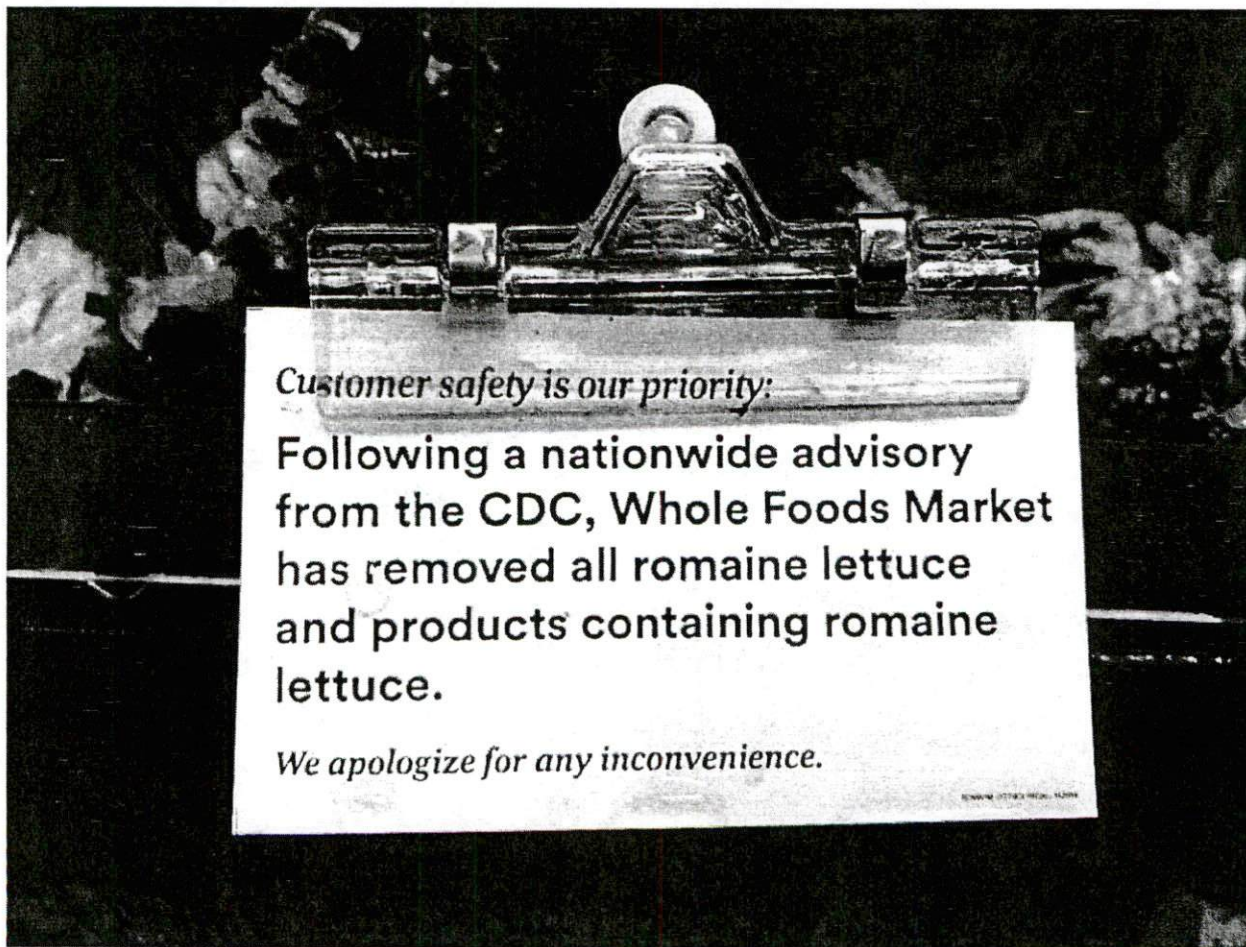
Romaine lettuce e coli outbreak food poisoning as a vegetable contamination or bacteria public health risk in a salad with 3D illustration elements.

GETTY

“There’s nothing blockchain can do that a database software program can’t do,” says Sarah Taber, a crop scientist based in Fayetteville, North Carolina, recalling a conversation with a colleague about whether blockchain could be agriculture’s food safety holy grail. Taber, an outspoken critic of the technology, says the industry should be looking within to solve food safety problems first. “It’s not the tool that’s the problem,” she argues. “It’s the people.”

The food industry has experienced a number of foodborne disease outbreaks this year, most notably in romaine lettuce and ground beef. And on December 13, Adam Bros. Farming, a California grower named by the FDA as a source of the most recent romaine outbreak, issued yet another recall, albeit precautionary, this time of its cauliflower and red and green leaf lettuce.

In the past year, the food industry has begun looking to technology, specifically blockchain, as a solution to foodborne disease outbreaks. Most notably, Walmart announced that in 2019, all of its leafy greens suppliers would be required to join its blockchain in order to continue supplying to its stores.




A sign is posted about romaine lettuce at a Whole Foods Market in Jenkintown, Pa, Wednesday, Nov. 28, 2018.
(AP Photo/Matt Rourke)

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Developed in 2008 as part of the cryptocurrency bitcoin, blockchain works by recording the transactions of a consensus of participating computer systems to the data chain. In the food industry, blockchain tends to be of the “enterprise” or “private” variety—that is, only a select group of participants are allowed to upload and access the data on the chain.

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Blockchain technology has garnered plenty of food industry buzz this year, but Taber, who also hosts a podcast called Farm To Taber about agriculture and technology, has become an outspoken critic. As far as she’s concerned, blockchain is a non-starter. “If you have a company that doesn’t hire quality people, then no tool you use is going to work.” 

Tracing a product like romaine lettuce should take a company like Walmart a matter of hours, not days, Taber argues. There should only be about a handful of middlemen to deal with, says Taber, and those middlemen should be keeping good records. If it takes longer than a few hours, says Taber, “that tells me your people are not using the tools they already have.”

Taber says she recently spoke with an avocado distributor who, despite using an older computer system, can quickly trace his product internationally within a few hours. “They’re taking avocados from Chile and Mexico and California,” she says, “and washing them and packing them and then distributing them to local facilities all across the U.S. and Canada.” Even though they’re using not much more than a “DOS-based software from the 80s,” she says, they can track their product within just two hours.

When it takes weeks, not hours, to trace product, it's impossible to get to the source of an outbreak. 🐦 That's why it's so difficult for CDC and FDA investigators to find the source of contamination. "By the time you get to the field where it happens," says Taber, "whatever is dirty is gone."



File - In this Aug. 17, 2016, file photo, a farm worker trims grape vines in a vineyard in Clarksburg, Calif. (AP Photo/Rich Pedroncelli, File)

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Taber, who works as an auditor, primarily of fruit and vegetable growers, says bad record keeping is a symptom of a more insidious problem. "In agriculture," she says, there's kind of a big fuzzy zone between bad record keeping and outright fraud." It's impossible to know for sure what's really going on when nobody is watching, she says, and even an auditor can only see so much.

Taber also worked for years as a farm worker before becoming a crop scientist, and she believes the real reason we're seeing more foodborne outbreaks these days is because of the increase in immigration crackdowns. Farm workers, the people actually in the field working the harvest, are in the best position to spot a food safety problem and report it. But these days farm workers are living in constant fear, if they're even working in the fields at all anymore.

“You really just want to keep your head down and not make any noise,” says Taber. “So if you’re seeing a problem, you’re not going to say anything.” The raids have created a “chilling effect” throughout the agriculture industry, Taber argues, because workers are increasingly terrified of speaking up about anything, let alone food safety, which is a problem that’s well beyond blockchain.

“It drives me crazy,” says Taber, “because they’re clearly telling us ‘we’re dysfunctional’ [but] what everybody’s hearing is ‘oh, we need better tools.’”

Blockchain might offer a better way to record and access data, but if the workers aren’t reporting the problems and the management isn’t accurately recording the data, then it seems blockchain doesn’t have much to offer.



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I’m a food, science and health writer whose work has appeared in The Washington Post, New York Magazine, Slate, Mental Floss, SELF and the Breakthrough Journal. Since 20... **Read More**
