

THE GUARDIAN

'It smells bad': the US farmworkers grappling with unsafe water at home

January 23, 2024

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It's easy to identify the residences of the farm workers who tend crops in the San Joaquin Valley, one of California's agricultural hubs. They tend to be small homes. Sometimes, location is a giveaway – a trailer set between a dust-choked highway and groves of pistachio trees. Sometimes, the tell is water.

"I see the difference between the green yards in east Fresno [a city in California] and the yellow yards in west Fresno," said Leticia Compañ. The farm equipment operator is referring to the divide between the tonier, whiter part of the city on one side of Route 41 and the largely Latino, lower-income population on the other, where she lives with her family.

Too little water creates more than eyesore lawns. Research, including in the journal *Environmental Justice*, shows farm workers across the United States – who hail mostly from Mexico and Central America – contend with consistently contaminated, unaffordable and/or insufficient water in their homes. It's a finding echoed by farm workers themselves.

Carmen Garcia, who harvests garlic, grapes, onions and oranges, doesn't trust the tap water in the rented west Fresno trailer she shares with her husband and children. "I use it sometimes, but it smells bad," she said. (Like all farm workers interviewed here, Garcia spoke in Spanish to an interpreter.)

Her neighbor, Otilia Ortigoza, who also harvests multiple crops, says she's gotten stomachaches and diarrhea from drinking water piped into the trailer she owns with her family of five.



With the summer of 2023 the hottest on record, farm worker advocates have increased pressure on states to mandate water breaks in crop fields; only California, Colorado, Oregon and Washington have legislated relevant permanent protections. Texas removed protections this past June. In peak heat and humidity, “workers really need to be drinking at least a liter [of water] an hour because they’re just sweating so profusely”, said Bethany Alcauter, the director of research and public health programs at the National Center for Farmworker Health. She emphasized that hydration has to be continuous: “You can’t go home and drink 10 liters of water” to recover, she said.

Among a population of 2.6 million people that’s already 20 times more likely than other workers to die from heat-related illnesses, many farm workers experience chronic dehydration. In the short term, dehydration can cause fatigue, dizziness, nausea and vomiting, according to Laszlo Madaras, the chief medical officer of the Migrant Clinicians Network (MCN). Longer-term effects of dehydration are linked to kidney stones, hypertension, obesity, diabetes and acute kidney injury (AKI). With the stress of repetitive dehydration, loss of minerals through sweating and possibly ingestion of pesticides, farm workers are increasingly experiencing chronic kidney disease (CKD), which can require dialysis and can result in death. Although exact causes for some subsets of CKD remain elusive, “we’ve noticed there’s more of it as things get hotter”, said Madaras.

A 2018 study, though, showed that 53% of the farm workers it studied were parched before they even got to the fields. Many farm workers live in un-air-conditioned, crowded housing that offers them no chance to cool down. Their lodgings might even lack running water. Even when running water is available, it’s frequently undrinkable and unlikely to help agricultural workers replenish.

For example, some Fresno water has contained 53 contaminants such as chromium, uranium and PFAS “forever chemicals”, 17 of which have been measured in amounts that exceed the Environmental Working Group’s (EWG) health guidelines; the group’s tap water database also points out that “legal does not necessarily equal safe. Getting a passing grade from the federal government does not mean the water meets the latest health guidelines.”

Cantua Creek, a majority farm worker town 40 miles to the south-west with fewer than 500 residents, has manganese-laden wells; reports issued by its local water system “say the water is clean and you can drink it, but we know it’s contaminated”, said resident Blanca Gomez.

Wells serving the 75 farm worker homes in Tooleville, in Tulare county, frequently run dry and are otherwise contaminated with nitrate and chromium. Trucks haul in water multiple times a day “just so people can remain housed”, said Jessi Snyder, the program director for Self-Help Enterprises (SHE). Her community development organization seeks to address housing and water service inequities and the public health disparities they foster.

Farm workers who purchase bottled water “are paying twice”, said Snyder. Combined with monthly water service bills approaching \$100, bottled water busts budgets for families with average annual incomes under \$30,000 and eats into money for food, rent and gas.

SHE has programs to replace and upgrade water infrastructure in the San Joaquin Valley; it also builds lower-income housing, some specifically for farm workers, using both federal and state grants for the purpose.

“Good, affordable housing and reliable, safe drinking water are nothing short of existential,” said Snyder. But ensuring access to water is fraught with challenges. Wells in the town of Richgrove, where SHE helped build a farm worker housing complex in the 90s, have become tainted with arsenic, nitrates and an agricultural chemical known as DBCP. While a new well and storage tank are being built, households in the complex ration the 20 gallons of water each receives monthly from SHE.

“This affects every normal activity, from getting your coffee ready to making lunch to showering,” said Nora Virgen, who picks grapes. It also adds labor to already exhausting days and even changes diets. Virgen and Ortigoza say they’ve stopped cooking foods like soups and beans because they’re too water-intensive.

Where farm workers live dictates who oversees (or doesn’t) their tap water. The federal Migrant and Seasonal Agricultural Worker Protection Act (MSPA) mandates that farmer-provided housing supply “adequate” water, in the amount of 35 gallons per person per day, for drinking, cooking, bathing and laundry; it also needs to meet the health standards in a given state. But again, in EWG’s words, legal does not necessarily mean safe. Amy Liebman, the chief program officer for workers, environment and climate with the Migrant Clinicians Network, said inspectors of these facilities tend to visit at the beginning of a harvest season. At that time, “everything is hunky-dory. But there’s a lot more [water] contamination ... when there are 100 people living in this camp on one septic system,” she said.

Most farm workers find accommodation on the private market, which is outside the jurisdiction of MSPA. A home in a remote agricultural area might fall outside the jurisdiction of the Safe Drinking Water Act, too; that legislation protects only “public” water systems that serve more than 15 households. So “it’s up to the individual to make sure their water is safe”, Liebman said.

Even public wells can run dry or become contaminated – more common as industrial farms suck aquifers dry and climate change exacerbates droughts. Digging new wells costs millions of dollars a farm worker community cannot afford without assistance. It can also take years – Cantua Creek has been waiting for its new wells since 2018. Interim measures to provide safe drinking water can have limited utility.

Seventy miles south of Fresno, the farm worker town of Allensworth discovered arsenic in its water in 2013; new wells and storage tanks won’t become operational till 2025. Meanwhile, 50 homes there received donations of hydropanels that draw water from the air – a desert miracle meant to

ease the bottled-water burden. Resident Kayode Kadara (who is not a farm worker) said the panels are “excellent for a farm worker community out in the middle of nowhere”. But they also provide a mere 2 gallons of water per customer per day, and they’re glitchy enough that Kadara says some neighbors have disconnected them.

Kadara and Compañ in west Fresno use home water filters. They’re “difficult to fully recommend”, said Jerry Tinoco, the regional field manager at another California-based affordable-housing developer, Rural Community Assistance Corporation (RCAC). A filter’s life varies widely “due to manufacturer specifications, the flow rate of water, and concentrations of contaminants, among other things”, Tinoco wrote in an email. Filters also need occasional replacing; if incorrectly done, this might “end up concentrating the contaminant or developing bacteriological or algal growth”. That makes ensuring that water is clean before it hits the pipes both crucial and common-sensical.

To reduce the cost of digging new wells, RCAC or SHE might “oversize” by digging a well big enough to serve 50 apartments, plus 200 built by another developer that pays to use it. In other cases, “consolidation” allows a community to tap into a nearby town’s well – although some towns resist. “Nobody wants water leaving their basin” as water becomes ever-more scarce, said SHE’s president, Tom Collishaw.



However, a new SHE development in Farmersville, called Los Arroyos, had no trouble tapping into nearby Cameron Creek. “The best partnership story ever,” Collishaw called it. It’s also a model for what truly equitable farm worker housing can look like, when developers care enough: located near schools, jobs and supermarkets; replete with amenities like playgrounds and community centers; and clean, airy apartments with plenty of potable water running through the taps.

The existence of Los Arroyos underscores the fact that farm workers in so many other places are still living in subpar housing, with no clean water in sight. “I feel stress ... and desperation ... and like I’m not valued,” said Ortigoza of west Fresno. “We are the ones collecting food for the tables of [our employers], and sometimes I feel that we are nothing but a tool for them to make profit. And we are suffering.”