

Even inside, you may not be safe from bad air. Here's a simple hack to clean your air

By Dayana Jiselle

Fresno Bee, Wed., Sept. 2, 2020

Marissa Huerta is a mother of two and is seven months along in her surrogacy journey. She has been experiencing side effects from Fresno's bad air quality due to wildfire smoke.

"My headaches would come instantly when I would go outside," said Huerta. "On fire days, my kids tell me that it's hard for them to breathe."

Tom Frantz, president of the Association of Irrigated Residents — a non-profit working to better the air quality in the central San Joaquin Valley — said that on a bad air day, the air inside older homes can be half as bad as the air outside even with the windows closed.

"I have asthma, and my lungs were getting congested from the smoke even though I was staying inside," Frantz said. "I checked indoor air purifiers online, which cost between \$250 and \$500 and not available in California."

Frantz said he was encouraged when he saw a tweet from a friend, Arsenio Mataka, who posted about a homemade filtered fan he made out of a box fan and the type of filter in the typical AC or heating unit.

"He told me he had given away about half a dozen of them to people who live in older homes and can't afford air conditioning or filtering of their indoor air," Frantz said.

What's in your air?

The U.S. Environmental Protection Agency uses a nationwide monitoring site to measure particle pollution, known Particulate Matter (PM2.5). PM2.5 measures tiny particles in the air — only seen under a microscope — that are inhaled by humans and animals.

Frantz got his own filtered fan from Mataka and, using his PM2.5 monitor, measured the air in his home before using the fan. His readings displayed 35 micrograms per cubic meter for fine particulates in his room. About an hour later with the fan running, the measurements had improved to about 25 micrograms per cubic meter, a 33% improvement. "The fan uses very little electricity, so I left it running all night while sleeping," Frantz said. "I felt the air was very nice without bothering my lungs even though it was still quite smoky outside."

How to build you own filtered fan

Tools:

1. 20" Box Fan "The best styles are those that are square or rectangular shaped with a flat back," said Frantz.
2. Merv 13 or 12 filter "These are available at places like Ace Hardware, Lowe's, or Home Depot. Filters need to be the same size or slightly larger than the back of the fan," Frantz added.
3. Duct tape
4. Scissors

The filter is taped to the back of the fan which draws the air through the filter and blows it into the room.

"It does not blow as strongly as it would without the filter, but it is still strong enough to work," Frantz said.

Box fans can be found for about \$30. Frantz warns that the low-quality filters will not properly filter out the air. Filters need to be rated MERV 12 or 13, which run for about \$20 each.

"The idea is simply to show the fans on social media and other people can build them for themselves," Frantz said.

Effects of breathing the air during fire season

Most recently, California has experienced poor to dangerous air quality due to the alarming 560 wildfires this season. According to CalFire, the largest current fires include SCU Lightning Complex affecting Stanislaus, Santa Clara, Alameda, Contra Costa, and San Joaquin counties and The LNU Lightning Complex affecting Sonoma, Lake, Napa, Yolo and Solano counties with nearly 400,000 acres burned for both.

Dr. Anil Ghimire, medical director with the Chronic Lung Disease program and associate clinical professor of medicine at UCSF Fresno, said this year's PM2.5 levels have reached level five for consecutive days -- the highest level, associated with the warning, 'Everyone should avoid outdoor activity.'

"That translates into more inflammation in the lungs and airways that may lead to severe and prolonged worsening of respiratory status in patients with chronic lung disease," Ghimire said.

The American Heart Association warns that PM2.5 could have a severe impact on the heart and that exposure of just a few hours or weeks to these particles can "trigger cardiovascular disease-related mortality and nonfatal events."

Ghimire said last year's dry winter season may mean this fire season can last well into the Fall.

"A prolonged period of poor air quality like this could lead to more hospitalizations for cardiovascular and respiratory issues as it appears that it will take some time to put out all the fires," he said.

There is a high concern that respiratory related ER visits and hospitalizations could create difficulties for hospitals which are already overwhelmed with COVID-19 patients.

"It takes some time for the inflammation in the lungs to reach the level where it causes poor control of disease," Ghimire said. "It may not manifest immediately."

What does this mean for the Central Valley?

Kevin Hamilton, co-founder of Central California Asthma Collaborative recommends that local residents stay inside as much as possible and check the air quality on the Real Time Air Advisory Notification, a free app which is accessible on a smartphone or computer.

Hamilton warns local residents that 24 to 48 hours of continuous exposure to this level of particulate matter can trigger asthma attacks, increased vulnerability to communicable diseases like COVID-19, the flu, or a common cold. This increases the risk of a stroke or heart attacks for those with uncontrolled high-blood pressure.

"This season has started earlier and with more intensity," Hamilton said, adding that the continued burning has generated some of the worst particulate air pollution, particularly in Kern County.

"The Valley in general will have worse air quality as the smoke can't escape once it enters," Ghimire said. "This puts residents at prolonged risk as our poor air quality will persist even in areas where the fires are controlled."

Frantz believes local governments should make these components available for free or at low cost during times of polluted air, which is quite often in the San Joaquin Valley.

[Wildfires again threaten business in California wine country](#)

By Brian Melley and Aron Ranen, [Associated Press](#)

The Business Journal, Monday, August 31, 2020

an early harvest already underway, a wildfire a few miles west of John Bucher's ranch added new urgency to getting his pinot noir grapes off the vine. If flames didn't do any damage to the delicate fruit, ash and smoke certainly could.

Bucher hired an extra crew, and they finished the task before dawn Wednesday in the quaint wine country destination of Healdsburg, remarkably early in the year for a grape that is often not harvested until the end of September.

"It was just a race to get it done," Bucher said, his voice hoarse after three days of almost no sleep and working in occasionally smoky conditions.

Fire has been cruel to Northern California wine country lately.

Three of the past four years, major wildfires have burned in Napa and Sonoma counties, charring vineyards, burning down a historic winery and sending plumes of smoke above the neatly tended rows of vines rolling across scenic hills.

While the majority of vineyards, winemaking facilities and tasting rooms that lure tourists from around the world have escaped damage, the perception of the area being on fire yet again has not helped business. Add restrictions on tastings and dining during the coronavirus pandemic, and winemakers say they are reeling.

“This year, you throw COVID on it, and what did we do to deserve this?” said Corey Beck, CEO and winemaking chief at Francis Ford Coppola Winery. “We really hurt more from the lack of tourists. That has been our Achilles’ heel during this time.”

Lightning-sparked wildfires west of Sonoma County and east of Napa two weeks ago coincided with the start of the harvest for some grape varieties. That’s much earlier than devastating fires last year and in 2017 that erupted in October, when nearly all the grapes were off the vine and in the process of being converted to wine.

The early fires pose a threat if they persist and heavy smoke blankets the region for several days before grapes are picked.

That can lead to “smoke taint,” an undesirable burnt taste in wine made from grapes with skins permeated by smoke.

While Napa and Sonoma counties produce only about 10% of the state’s wine, they have an outsized influence on California’s position as the nation’s leading wine producer.

The neighboring counties have a combination of chic and rustic wineries — from chateau-style estates to those offering tastings in barns — and are the best known among California’s many wine regions. The grapes grown there have the highest value.

Fires led to evacuation orders for some vineyards and closed down wineries that had pivoted to offering outdoor tastings and dining to meet state regulations during the pandemic.

While fires in recent years hurt tourism as smoke cast a pall over the verdant valleys bisected by rivers and surrounded by forested hillsides, most tasting rooms remained open and tourists still came.

But the landscape changed this year.

“You can’t sit inside because of the pandemic, and you can’t sit outside because of the smoke,” said Janet Tupper of Napa, who runs Mercantile 12, a wholesale business that sells wine country-themed gifts, such as T-shirts, tea towels, tote bags and wine accessories, to gift shops and tasting rooms.

While large wine producers that sell to grocery chains and others with robust online sales have thrived during widespread business closures during the pandemic, wineries that sell high-end wines to restaurants and those that rely on tourists have suffered.

Given the large tourism losses since businesses shut down in March as COVID-19 spread, the impact of wildfires will be negligible in comparison, said James Lapsley, a researcher at the University of California’s Agricultural Issues Center and a winemaker.

Vineyards have been largely resilient to fire because they generally don’t burn and serve as firebreaks, Lapsley said.

The bigger threat now is the possibility of smoke damage.

Some wineries that don’t have their own vineyards are opting out of buying some grapes this year because the risk is too great that a vintage could be spoiled by smoke, said Tawny Tesconi, executive director of the Sonoma County Farm Bureau.

That creates a ripple effect in the economy that leads to fewer harvesting jobs and less wine to sell. While crop insurance provides some protection for growers, it’s never enough to recoup the loss, Tesconi said.

Farmers, who are accustomed to coping with drought, flooding and labor shortages, now have to add wildfire to the challenges they face. When the Walbridge Fire broke out two weeks ago, part of the LNU Lightning Complex of fires around wine country, the Farm Bureau was holding a fire training program for members.

“It’s almost like we’ve accepted that these situations are happening way too often in Sonoma County,” Tesconi said. “The devastation that wildfire can bring unexpectedly in a short period of time is more of a concern because you just have no control over it.”

Because of frost early in the year, cold temperatures in May and then extreme heat in August that threatened to shrivel grapes on the vine, Bucher had already begun to harvest his pinot noir fruit a few days before the fire ignited.

Bucher produces his own wine but also sells to 15 other winemakers. They were relying on his crop and became concerned as the fire burned and sometimes sent heavy smoke over his vineyards.

With extra workers, they completed the harvest in 12 days instead of the typical three to four weeks. Preliminary results show there is very little smoke taint, but he won’t know until he can taste the wine after fermentation.

Hours after the harvest, the fires still burned in the distance but the winds had shifted and Bucher’s ranch was under a clear sky. It was unclear how long it would last and what would happen in the weeks ahead when he has to harvest four more varieties of grapes.

Massive wildfire now 60% contained

Press staff report

Tracy Press, Monday, Aug. 31, 2020

All evacuation orders and warnings for San Joaquin and Alameda counties have been lifted as of Monday, when firefighters were reporting 60% containment of the SCU Lightning Complex fire burning since Aug. 16.

Cal Fire [expects to have the fire fully contained](#) by Thursday. The fire has destroyed 40 structures and damaged 18 more, burning through 383,157 acres as of noon Monday, which makes it the second largest wildfire in state history.

Five people have been injured as a result of the collection of lightning-sparked fires burning across parts of San Joaquin, Santa Clara, Alameda, Contra Costa, Merced and Stanislaus counties. Those fires merged into one major fire with two branches, which Cal Fire reported was still burning fiercely through dead and fallen trees and brush. Crews were scouting for safe access points that would allow them to set up fire lines using backfires to control the flames’ spread on Monday. Cal Fire reported that 1,934 firefighters were assigned to the fire with 233 engines, nine helicopters and 40 water trucks.

Roads remain closed through the area, and people returning to their homes are warned to stay on alert for downed power lines. Tree or power poles that are smoking or deeply charred should also be considered hazardous.

In Santa Clara County, some mandatory evacuation orders have been changed to warnings, and some warnings have been lifted. All remaining evacuation orders and warnings for Stanislaus County [were lifted Sunday morning](#).

For a complete list of changes, check [Cal Fire’s evacuation map](#).

Progress on wildfires, but it’s still hazy in Modesto — and 100-plus heat will return

[By Deke Farrow](#)

Modesto Bee, Tues., August 31, 2020

Modesto area residents can expect widespread haze from wildfire smoke through Tuesday, according to the National Weather service, then a return to triple-digit heat for the weekend.

As of 9 a.m. Monday, the air quality reporting site airnow.gov said conditions in Modesto were “unhealthy for sensitive groups.” It advises people with heart or lung disease, older adults and children to shorten the amount of time they are active outdoors and to choose less strenuous activities, like walking instead of running.

The [San Joaquin Valley Air Pollution Control District](#) also reports that air quality in Stanislaus County on Monday was unhealthy for sensitive groups. It says wildfires have produced smoke that’s reached all counties of the Valley air basin, and a health caution will remain in effect until the fires are extinguished.

One of those blazes, the Moc Fire in Tuolumne County, is 100% contained, CalFire reported Sunday evening. It began Aug. 10 and has burned 2,857 acres.

Cooperating agencies assisting its Tuolumne-Calaveras Unit have begun moving out, CalFire reports. TCU personnel will continue to extinguish the fire but has not yet announced an anticipated completion date.

of five counties including Stanislaus, has consumed 383,157 acres and was 60% contained as of CalFire’s update Monday morning. Full containment is expected Thursday.

CalFire’s incident update says hot, dry conditions are expected through the Labor Day weekend. And the weather service warns that northerly winds could increase spread of any new or ongoing fires.

For the Modesto area, the NWS says much of the week will see daily highs in the mid-90s, and haze giving way to clearer, sunny skies starting Wednesday.

Saturday, the expected high is near 100, and Saturday night is likely to cool to 71 degrees — several degrees higher than the overnight lows leading up to it. Sunday may reach 104 degrees, the weather service says.

If Sunday’s temperature hits that mark, it would be a record, according to Modesto Irrigation District weather archives. The high temperature in Modesto for Sept. 6 was 103 degrees in 1977. MID has recorded high and low temperatures since 1939, and the historic average high for the date is 90 degrees.

For many parts of interior Northern California, including Modesto, the weather service is warning of high heat risk even for the general population over the Labor Day weekend. It advises residents to take precautions to remain cool and hydrated.

Firefighter killed at scene of wildfire in California forest

The Associated Press

In the Modesto Bee, Tues., August 31, 2020

SAN FRANCISCO - A firefighter was killed and another injured Monday battling a wildfire in the Northern California forest, authorities said.

The firefighter was killed in Mendocino National Forest north of San Francisco, where a wildfire that started on Aug. 17 was 20% contained, according to a statement from the U.S. Forest Service.

No other details were immediately available.

The blaze was burning in timber, chaparral and tall grass. It began as 37 separate fires but many have either been contained or merged, according to the Forest Service.

Many other fires continued to burn.

California was free of extreme weather warnings Monday but firefighters working to contain massive wildfires were cautioned about increasingly warm and dry conditions heading toward the Labor Day weekend.

The two largest fires, east and north of San Francisco Bay, were each about 65% surrounded, the California Department of Forestry and Fire Protection said. A third big fire, burning to the south in the Santa Cruz Mountains region, was 41% surrounded.

That fire has burned nearly 900 homes.

The progress has allowed thousands of people to return home but nearly 40,000 remained under evacuation orders, Cal Fire said.

Those fires and others began with a massive electrical storm on Aug. 15 that unleashed thousands of lightning bolts.

Hundreds of wildfires ignited in that time period have burned more than 2,218 square miles (5,747 square kilometers).

There have been eight deaths and more than 2,800 structures destroyed, many of them homes.

A Red Flag warning in Humboldt and Del Norte counties expired at late morning. Air quality alerts due to smoke went into effect for the Lake County air basin and in parts of the San Joaquin Valley Air Pollution Control District.