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## **Helium shortage impacts local businesses, researchers**

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AUSTIN (KXAN) -- A nationwide helium shortage is deflating local businesses and researchers that rely on the gas as tanks become harder and more expensive to acquire.

The shortage, which started several weeks ago, appears to be caused by several factors, including sanctions on overseas supplies, lower U.S. production, and prioritizing what's available for military and medical uses.

"We did not get much notice with it," said Brett Nelson, owner of the Austin-based party supply and decorations company Balloons 'N' Smiles.

Nelson spent Wednesday inflating and tying up 120 balloons for an event later in the day. He typically runs through a couple tanks of helium in a week, and as many as three or four during busier parts of the year.

It's been harder to find full tanks the last few weeks, which meant he's had to get creative with how he fills the orders he already had lined up before the shortage hit.

"It's left us constantly guessing," he said.

The decreased supply has also left researchers at the University of Texas at Austin wondering when their next shipment will come. Geologists there use helium to provide better x-rays of core samples used for oil and gas drilling, among other applications.

The gas is very light and non-reactive, so Toti Larson, a geologist at the university's Bureau of Economic Geology, said it makes for the perfect element to sweep away any oxygen, nitrogen and argon between the x-ray instrument and the sample. That provides a clearer picture of what's inside the rocky cores they test for drilling companies.

"We go through probably two tanks of helium a month," Larson said. The work allows for more precise drilling, he added, meaning oil and gas extraction has less of an environmental impact.

Helium's extremely low freezing point also makes it ideal for cooling applications. MRI machines, semiconductor research and rocket testing all use the gas for that reason.

Larson's seen helium shortages before and thinks this one has something to do with the recent government helium auction at a storage facility in Amarillo.

Leading up to World War II, the Amarillo Helium Plant [served as one of the world's predominant helium extraction facilities](#), separating the element from other natural gases trapped under the earth's surface. The U.S. Federal Helium Reserve was also stored there for decades following the war until Congress passed a law in 1996 ordering the draw-down of the stored gas.

The federal Bureau of Land Management, which manages the site, says it still accounts for 40 percent of the domestic supply of helium. For the last several years, the BLM has hosted helium auctions at the plant, [the latest this past July](#).

That, Larson thinks, also plays a role in the recent shortage.

"What we're trying to do is keep a larger supply of helium on hand so that we have more tanks available to us," he said.

But they've been tougher to get recently. The researchers are waiting several weeks for a new shipment, as opposed to the usual few days. The periodic unavailability of the gas can be worrying, but if they were to switch to using another gas, "that would change a lot of our methods," Larson said, "and that takes time and money."

And even if they wanted to invest in changing their instruments, other elements as light as helium, like hydrogen, bring other dangers, like reactivity and flammability.

Nelson's supplier told him originally the shortage would end by early December, but now he says it might be more like mid-January before the flow of gas is back to normal. "So we just don't know," he said.

In the meantime, he's conserving his tanks any way he can. One method is to fill balloons partly with air, partly with helium so they still float, but with less of the gas. Also, typically he makes

balloon arches only with helium balloons, but he's been switching out that method in favor of a rigid frame so he can attach air-filled balloons instead.

He's ready to do what he can to keep a supply of helium on hand so his customers don't get deflated.

"It is hard to imagine a world without birthday balloons."