

Yellow Heat inventor Thomas Leue of Ashfield touts vegetable oil as energy source



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ASHFIELD — Thomas Leue knows there are skeptics. With almost every invention or new concept, a little snickering in the background shares space with curiosity, optimism and hope.

He is undeterred. Working from his Ashfield shop, Leue is convinced he's found an energy source that will help the environment, bring small business costs under control and add value to a substance now usually tossed in the dump.

Through [Yellow Heat](#), Leue guarantees a savings of \$1 per gallon or more compared to conventional heating oil by burning vegetable oil — also known as yellow grease. “No messy filtering or preheating required!” his website proclaims.

It sounds almost too good to be true, which may be one reason Leue has had to work so hard for broader acceptance.

Vegetable oil as an energy source may sound radical to some. But Leue, whose company, Homestead Inc., is the producer of Yellow Heat, says he's proven it works.

“It’s non-toxic and non-flammable. There is no fear of a toxic spill in the basement,” he said.

“Vegetable oil is rated as a noncombustible liquid, so it is fire safe and safer than heating oil. Our system is continuously monitored by the internet with an app that shows system status on your phone.”

Leue said his burner makes use of a waste product.

“Every restaurant throws away 5 to 10 gallons of vegetable oil a week,” Leue said. “I worked in the biodiesel field, and I got to know about vegetable oil. I looked to see if it had any value, and it does. We can use it as we use heating oil in a lot of cases.”

Leue, who has been working on his idea for 20 years, recently had help from Valley Venture Mentors, a Springfield nonprofit. Leue said he appreciates what help he received, but says the agency was not overwhelmed by his idea.

“I don’t think they realized the incentives of (this type of) green energy. They thought it was a far-out idea,” he said.

Valley Venture Mentors thought enough of the Yellow Heat oil burner to provide a \$5,000 Clean Tech award, in partnership with the Massachusetts Clean Energy Center, in June of 2018.

“VVM and MassCEC have partnered to offer Yellow Heat this grant, as we recognize that using local waste resources to replace fossil fuels is both good for our local economy and the earth. We’re excited to see Yellow Heat expand his business and wish him the best of luck,” said Dorota Glosowicz of Valley Venture Mentors, which posted a [sizable story](#) about Leue’s product to its website.

Did Valley Venture Mentors consider the idea “far out”? Interim CEO Chris Bignell, who met Leue at the Springfield Innovation Festival in 2019, acknowledged it’s easy to think that way.

“But then I got to thinking, those are the people (with such ideas) who often strike gold. He’s very well-intentioned, it’s a really great concept, and he’s a perfect example of (independent) people who follow their goals,” Bignell said. “It’s tough for any entrepreneur to do a startup on his or her own. But he’s still plugging away, and those are the people VVM likes to help.”

Yellow Heat’s assets are similar to those of products of [Greasecar Inc.](#), an Oregon-based firm that also has Western Massachusetts roots. Created in 2000 by

Hampshire College graduate Justin Carven, Greasecar produces vegetable oil conversion kits for diesel vehicles. “They started out right down the street from me, and their idea worked,” said Leue, who said Yellow Heat’s process is simplified because, unlike some other uses of vegetable oil, it does not require filtering. Promoting a new idea involves selling it as much as creating it. Thomas Edison was a marketing genius. Leue confesses he is not.

“I’m not very good at marketing. And I’m certainly not the biggest company in the world,” he admits.

Even so, he says vegetable oil has advantages that science cannot deny.

“Yellow Heat is the world’s only heating system that can be carbon neutral. It could be popular, especially with some restaurants,” he said.

That’s probably Leue’s best target audience. If a restaurant serving fried foods throws out, say, 10 gallons of oil a week, it adds up to more than 500 gallons per year.

“Vegetable oil goes for about one-tenth the cost of heating oil. ... Waste oil is much cheaper,” Leue said. Heating oil has lately been about \$2.35 per gallon with vegetable oil hovering around 25 cents, he said.

On the surface, it sounds as if Leue has come up with the right idea at just the right time. Clean energy is all the rage, notably in Massachusetts, where Charlie Baker says he wants to be remembered as the environmental governor.

Small businesses are struggling during the [coronavirus pandemic](#). Restaurants have been hit especially hard. Around the United States, it’s estimated at least 100,000 have closed for good, and the survivors must cut overhead to ride out the scourge. Leue wants people to know he’s the salesman of a burner for vegetable oil, not snake oil. Any inventor wants to make a buck, but he sounds much more devoted to providing a heat source he says takes the checklist of traditional energy drawbacks and crosses them off, one by one.

“There is almost no sulfur in vegetable oil, so it smells better and does not add this to local pollution and acid rain. Carbon monoxide and fine particulates are greatly reduced. ... (Environmental Protection Agency) calculations show a 98% reduction in net climate impact as compared to regular heating oil,” he says.

In the gigantic field of energy, Leue is the quintessential underdog. But then, nobody believed Edison at first, either.