

The Beautiful & Efficient Enki Biomass Stove Creates Biochar as It Cooks Your Dinner

Source: treehugger.com

Published: December 20, 2016



© Enki Stove

[Derek Markham](#)

Whether you're camping or just cooking out, Enki portable pyrolytic stoves offer a clean-burning flame from found fuel.

The latest entry to the biomass stove market is a stylish and functional offering from the Italian company Enki Stove, and while it's designed with outdoor adventures in mind, this clean cookstove would also look right at home on the deck or picnic table. Originally launched this spring via a successful Kickstarter campaign, the Enki Wild and Wild+ biomass stoves are billed as being able to "cook everywhere with everything," while also converting the fuel materials into biochar, which has been shown to have a beneficial effect on soil health.

While some biomass stoves are in the 'rocket stove' category, the Enki models are considered to be pyrolytic stoves, and instead of burning the fuel directly, the design facilitates [the conversion of the feed material into gas](#), which is then burned (also called a gasifier stove) for a clean, smoke-free flame. And while it's still a combustion stove, and entails burning a fuel for heat, this design also allows for the efficient use of small biomass scraps (twigs, bark, etc.) and yields a waste material that's [potentially beneficial](#) for both [carbon sequestration](#) and building healthy soil (your mileage may vary). It's not meant for daily cooking, or to be a cleaner alternative to indoor electric stoves, but for camping trips, picnics in the woods, and backyard meals, it could be a

much better option than charcoal. Plus, with an Enki stove, there are no fuel canisters to buy, transport, or dispose of.

The Enki Stoves aren't completely biomass-fueled, as one of the features of the design is that it requires a small fan, powered by a battery (which can be charged via a solar charger), which regulates the airflow into the combustion chamber. The fan essentially draws the gas produced by the biomass, transporting it to the top, where it is then burned, and by controlling the fan via a USB cable, the stove can operate with a small, medium, or high flame, allowing for varying the heat for different cooking needs. According to Enki Stove, the battery for the Wild model (10,000 mAh) will run for up to 50 hours of cooking time per charge.

Here's a brief overview of the lighting and use of the Enki Wild:

[Video no longer available]

The original Wild model measures 21.5 cm high and 15 cm in diameter (8.46" high by 5.9" wide), weighs 1.3 kg (2.86 lb), has a fuel chamber capacity of about 200 grams (as measured in wood pellets), and is said to be sufficient for cooking for up to four people. For larger groups, the Wild+ model measures 35.5 cm by 23 cm (13.97" by 9" in diameter), can hold up to 900 grams of fuel, and weighs 2.7 kg (5.95 lb).

To be clear, this isn't a dedicated biochar stove, so if you wanted to produce quantities of biochar, a purpose-built biochar gasifier is the way to go. Although the stoves do produce some biochar as a byproduct, the burning process has to be managed to 'harvest' the biochar, and according to the company, should be emptied for biochar purposes "as soon as you see the flame turns to a charming blue color," which means restarting the stove again if you're not through cooking yet.

The Wild is priced at 229 € (~US\$238) and the larger model costs 349 € (~US\$362). More information can be found at [Enki Stove](#), or at [the original crowdfunding campaign page](#).
