

Mud / Sawdust Stove

Origin: Traditional

Weight: 6.6 kilos

Cost: Free

Fuel Type: Wood

Contact:



Description: The earthen wall was made using 60% sand and 40% clay. Sawdust was added to help lighten the wall and to create a better insulation. 12mm of newspaper and cardboard was wrapped around the pot. The earthen mixture was then formed around the pot. Surrounding the fire with a wall of earth protects the fire from the wind. For this reason a simple wall of earth can help save fuel. However, the heavy earthen wall absorbs heat that is then lost into the wall and does not help to heat the pot of food. It is important to design an earthen stove that:

1.) Creates a 12mm channel that forces the heat to scrape against the side of the pot. The narrow channel greatly increases the amount of heat that gets into the pot. 2.) Leaves a large air space between the fire and the earthen wall. The air space helps to insulate the fire and reduces the heat lost into the earthen wall.

Comments: Like the 3 Stone Fire, it is difficult to keep the fire lit in this stove. It is very tempting to make a big fire that will keep going.

Adding a grate that lifts the wood up above the ground would help a small fire to keep burning.

The small channel is filled with fire at times, and it is easy to see why the narrow gap helps the heat to enter the pot.

It is nice to see that a zero cost wall of earth can help to boil water faster than the 3 Stone Fire, save fuel, and even slightly decrease harmful emissions.