

### *Wood Chipper Replacement*

I made a 5'-tall version of this 10" diameter stove for a farmer who grows fruit trees (the one shown 4' tall). By using a 6" diameter stack about 15' tall there was enough draft to run it with the lid off – without having smoke run backwards up the 10" pipe (The front air inlet was blocked off, and vents near the stack exit were opened to keep ash from accumulating there).

It is very important to use a spark arrestor on all wood stoves. I believe the forest service requires 3/8" mesh, but I always make a capped tube of 1/4" hardware cloth that extends about a foot above the end of the flue.



The air inlet is at the bottom on the left, and the 6" flue connection is at the lower right. The capped pipe at the bottom right has a mate on the other side. This option allows extra air right at the exit point, to help keep the flue entrance free of ash.

With pollution restrictions it is increasingly difficult to burn the tons of sash (branches and twigs), so they must be ground in a chipper and shipped off to a biomass disposal site. The chipper of course consumes petroleum and does its share of polluting.

This stove was able to consume sash almost as fast as the chipper, used no gasoline or oil, and produced no visible emissions.

There are agricultural processes where incredible amounts of propane and other fuels are consumed

as heat. It would make a lot of sense to use agricultural waste as a source of heat – consider:

- It would spare the eco-damage of mining, refining, transporting, and burning of vast amounts of fossil fuels.
- The fossil fuels would be replaced by renewable fuel, resulting in no net increase of greenhouse gasses
- Transportation costs would be greatly reduced since the fuel would be produced within agricultural areas near where they would be used.