RECIPE (by volume)

5 parts clay

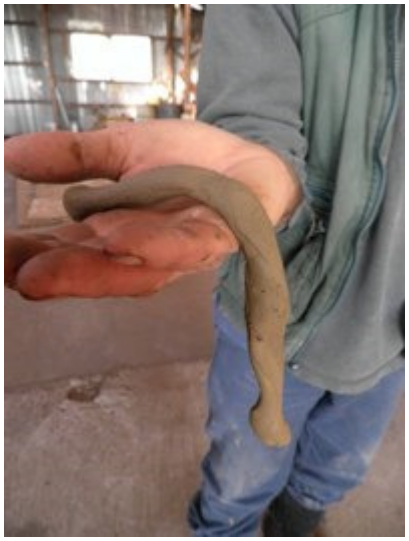
5 parts organic matter (packed)

1 part potash water

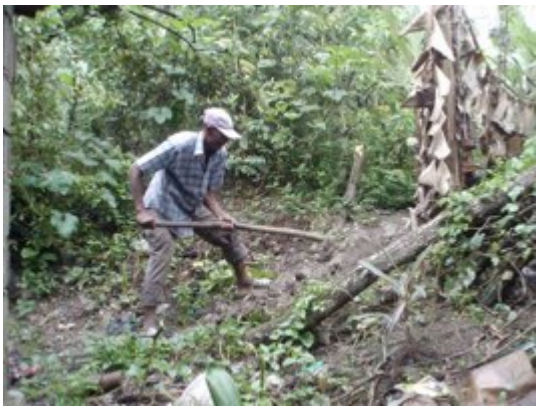
1 part sugary syrup

1/2 part fine straw

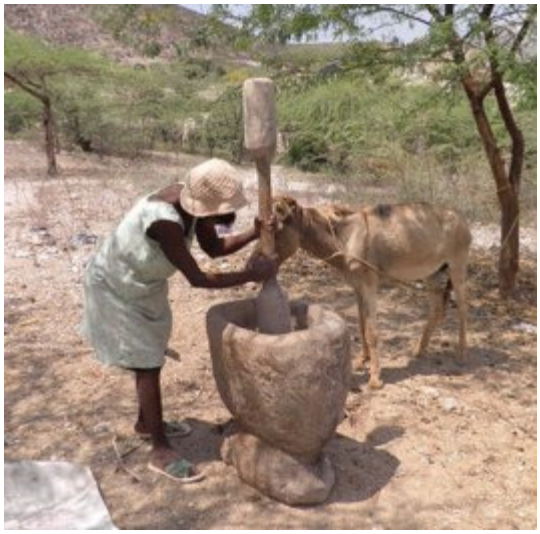
CLAY



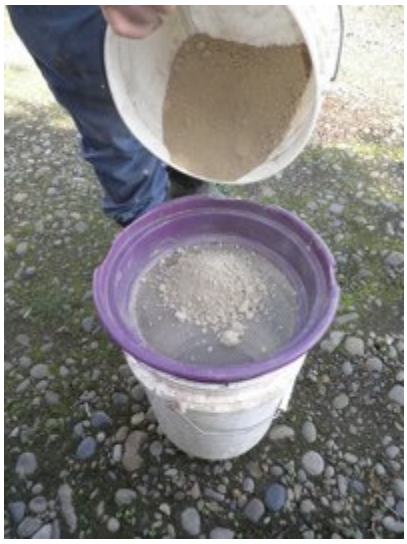
Roll moistened clay between your hands. If it hangs over your hand without breaking or cracking then you have clay that will work for making rocket stoves.



Find good source of clay without rocks. If there are a few rocks you can pass the clay through a 1/4" or 1/8" screen.



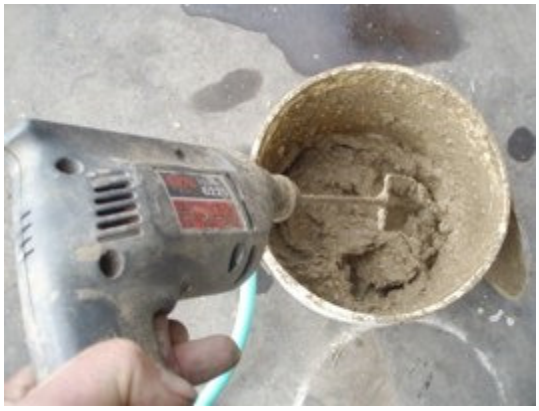
If you use dry clay, it must be pulverized fine enough ...



to pass through a 1/8” screen.

Clay particles that are larger than 1/8” will not mix well with the organic matter and your stove will not be durable.

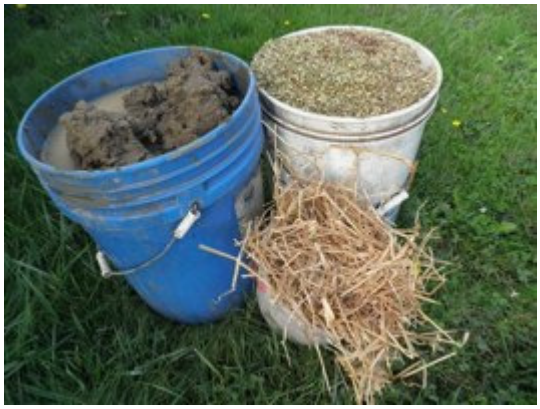
Through a long process of trial and error and advice from others, we found the quickest and easiest way to mix everything is to moisten the clay and then turn it into a thick paste without any lumps.



If you have access to electricity, a drill with a paint mixer attachment is a quick, satisfactory way to remove lumps in wet clay. Depending on the condition of the clay you may need to soak it several days.

ORGANIC MATERIAL

Insulation is essential in a Rocket Stove. Organic material or pumice gives clay insulating properties and helps keep it from cracking.

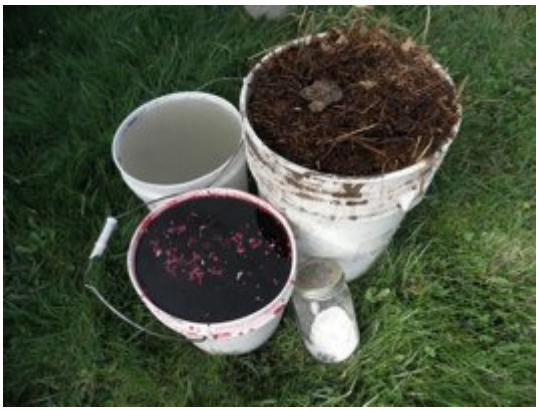


Rice hulls, sawdust, pumice, screened fresh stable manure and a variety of other materials also work to mix with clay to create an insulated and durable mud Rocket Stove.

An insulated combustion chamber radiates heat back, raising the temperature. With higher temperatures there is more complete combustion of the gases which means less smoke and better fuel efficiency.

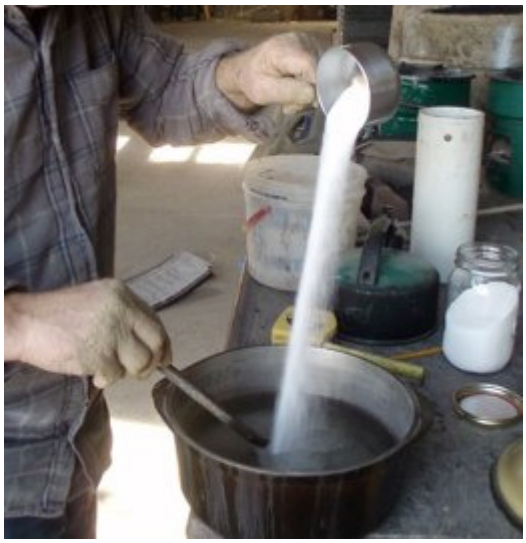
Ingredients for the clay mixture are:

5 parts clay, 5 parts organic material, 1 part sugary fruit pulp (or 2 cups sugar) and/or 1 part potash water, 1/2 part straw.



SUGARY PULP

If you have waste fruit laying around, turn it into a sugary pulp and add it to the clay mixture. You can do this by mashing the fruit or boiling sugar cane residue in water.



SUGARY PULP

You can substitute sugar for fruit pulp by mixing 2 cups sugar with 1 gallon water.

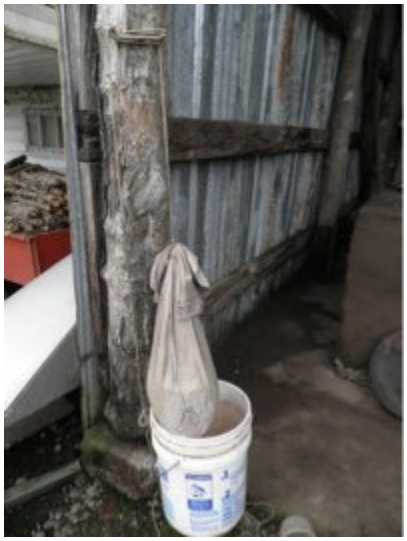
POTASH WATER

Potash water also makes the clay mixture more durable. Potash comes from wood ashes. Be sure to use ashes that haven't been rained on. Mix 1 part ashes with 5 parts water in a bucket.

POTASH WATER

Pour the mixture through a cloth or fine screen.

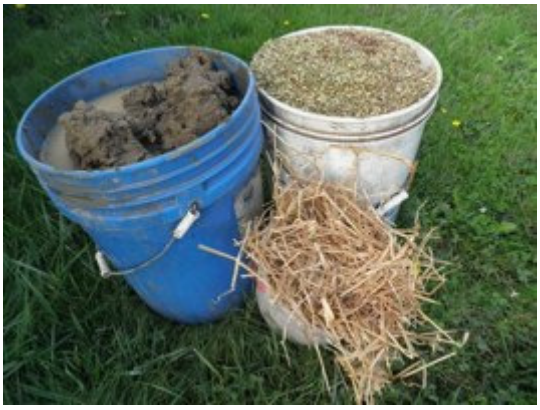
Use the potash liquid and discard the sediment.



Separating potash water from ashes can take a long time so we tie the ash bag and hang it from a nail in the post. The potash water drips into a bucket below.

DRY CLAY

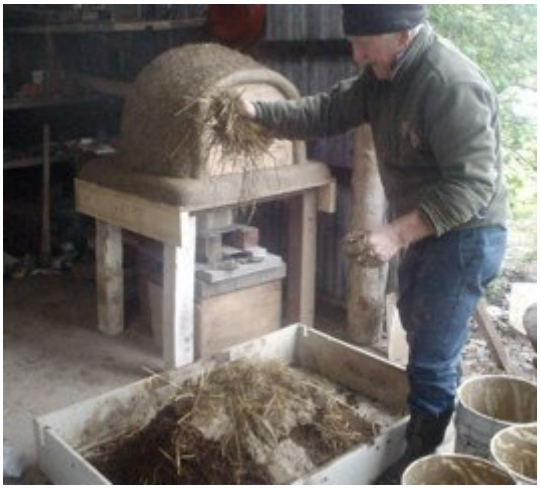
When using dry clay, thoroughly mix it with the organic material before you add liquids. Add fruit pulp/sugar water and/or potash water after mixing the clay and organic material. Hot water makes mixing easier



The basic mix we use is 50% clay and 50% organic matter with a little added straw helping tie things together.

WET CLAY

If you use the wet clay process, use the potash water or sugar water to moisten the clay. If you add potash or sugar water later, the clay mixture will be too moist and the stove will slump.



If the material used for insulation is dry, then you can get away with wetter clay.

The ingredients need to be thoroughly mixed together. It can be mixed in a wheelbarrow with a hoe or as shown using hands and feet.

The better the ingredients are mixed together, the more durable the stove will be and the longer it will last. Incomplete mixing will result in a stove that will crumble.

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How much insulating clay will you need to mix up?

You will need about 3 five gallon buckets of finished materials to complete one tower stove. It is better to have too much than not enough.