Dear All Stovers, Gasifiers, and Biocharists,

I've been reading with much excitement the postings on the gasifier list regarding chippers. The articles regarding initial cost, energy used, maintenance figures, and blade life were all considerations that I needed to make when contemplating low cost (possibly hand cranked) pellet mills for developing nations.

Allow me to introduce a new pellet mill! Low cost, self sharpening blades, runs on biomass, and best of all is edible. They come in a wide variety of models that are indigenous to every continent.

Silliness aside, our latest tests in our pyrolytic stove shows these pellets to produce a wonderful gas quality and the resulting char is not only uniform but when exposded to air it pulverizes. This would seem to be an important advantage in that many of the studies presented at the 2008 IBI conference indicate that biochar should be ground to fit through a fine mesh before being added to soil.

I understand that with a pellet mill 1 kg of biomass will turn into 1 kg of pellets but when we consider the lower cost and ramifications of increased food supplies it would seem we have a winning opportunity to help a great many people.

Additionally, we suspect that because phosphorous does not volatilize, the biochar derived from from the pyrolyzation of the pellets from these self-sharpening–micro-pellet-mills may also be phosphorous rich! If there are any chemists or chemical engineers out there who would like to help, we would be more than happy to send samples of pyrolyzed pellets for analysis.

All the best,

Nathaniel Mulcahy
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