



Aprovecho Research Center

Advanced Studies in Appropriate Technology Laboratory

P.O. Box 156 Creswell, OR 97426

541-895-5677

Initial Development of a Charcoal-Burning Rocket Stove

Dean Still

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Insulated Rocket Stove for Charcoal:



Fuel Entrance Closed



Insulated Chimney (33 cm tall)



Grate under chimney to hold charcoal

Preliminary Fuel Use and Emissions Test Results:

		Wood Stove Benchmark	Charcoal Rocket (Without Skirt)	Ghana Charcoal Stove	WFP Wood Rocket (with Skirt)
Time to Boil	min	-	22	29	22
Fuel to Cook	g	850	604	675	733
Energy to Cook	kJ	15,000	19,130	21,396	12,579
CO to Cook	g	20	12	74	15
PM to Cook	mg	1500	81	85	1289

Charcoal energy to cook = kg to cook * 31680 kJ/kg