

Briquette making: how to make cash from cow dung

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Introduction

There is a lot of damage being caused to local forests and trees in Uganda as a result of the daily collection of firewood for fuel by mostly the women and youth. Additionally, the women responsible for firewood collection are increasingly coming into direct contact, and conflict with, wildlife (particularly snakes) on their daily firewood forays. The women have to travel long distance to collect firewood because of the deforestation caused by their activities, which is taking them away from their other household duties. So, desperate to put food on the table for their families, poor women often resort to using unhealthy sources of fuel such as plastic waste, at the expense of their health. In an effort to reduce expenditure on cooking fuel, they are also pushed into abandoning nutritionally rich traditional foods that take long to cook, further affecting their families' nutrition security.

A number of market-oriented smallholder dairy cattle farms are being managed in urban and peri-urban areas of Uganda. Dairy intensification provides both opportunities and challenges that need to be managed accordingly in order to improve milk production in a sustainable way. A well fed and managed cow can produce about 25 kgs of dung daily. That is about 10 tons of dung per year. Improper disposal of cow dung is a major challenge in urban and peri-urban areas and this causes environmental pollution, unpleasant odour, endemic diseases, and water infiltration in soil and river. One of promising methods that youth groups is venturing in is transforming cow dung into briquettes.

What is a briquette?

A briquette is a block of compressed coal dust, charcoal dust, sawdust, wood chips or biomass and is used as a fuel in stoves and boilers. Charcoal is not like clay. Charcoal is a material without plasticity and cannot be moulded into a shape without adding a binding material. To form charcoal dust into briquettes, an agglomerating material is added to the charcoal dust, and then pressure is applied to the mixture to form a briquette.

There are different ways of making briquettes. You can use cow dung and charcoal dust, you can also use cassava flour by boiling it until it looks like porridge then when it cools, you mix it with the charcoal, mould it and spread it under the sun

Requirements for making charcoal briquettes from cow dung

- Overalls,
- Black plastic gloves,
- Masks,
- Covered shoes/boots.
- Cow dung,

- Stick/rod to turn the material,
- Water,
- A place to mix your material,
- Briquette press and,
- A place to dry your briquette

Easy step-by-step instructions on how to make charcoal briquettes

- Stage 1:** Sieve charcoal dust to free it from any impurity.
- Stage 2:** Crush charcoal dust into fine powder.
- Stage 3:** Mix cow dung with charcoal dust and very little water in a ratio of 1:2: 0.5 (cow dung to charcoal dust to water).
- Stage 4:** Put the material inside the briquette mould, hit 2 or 3 times and remove.



Locally made briquette mould produced at Kyakuwa Farm



Cow dung briquettes

- Stage 5:** Remove the briquettes and dry in a solar dryer or under a well-ventilated place where they stay for 4 days before being packaged. Drying fuel briquettes on the ground slows down the process as some pieces receive low amounts of sunlight. Spreading briquettes on roof tops speeds up the drying process, but results in

breakages. Briquettes dry in less than 3 days during the dry season and take twice as long during the wet season.

How to use the briquettes

- Light your charcoal stove with a little charcoal.
- When the charcoal has lit up, add the briquettes.
- Briquette making can be a money venture that you can involve your children at any age.

Benefits of briquettes

- Briquettes are a clean cooking fuel that helps keep the environment safe and does not damage one's health since they are smokeless.
- Briquettes reduce household indoor air pollution with carbon monoxide and fine.
- Briquettes made of cow dung and charcoal dust burn for over four hours, compared to two and a half hours for regular charcoal.
- Briquettes emit neither smell nor sparks.
- Briquettes leave no soot on saucepans.
- Briquette production is a profitable business for the youth since materials used to make them are locally available and the demand for charcoal is high.

Marketing briquettes

- You can sell 5 charcoal briquettes for Ushs 1,000.
- Two youth can make about 1,000 briquettes in 3 hours.
- You will need half a bag of charcoal dust (Ushs 5,000) and 2 wheel barrows of cow dung (Ushs 5,000) to make 1,000 briquettes.
- To realize high sales, potential customers need information on multiple benefits of fuel briquettes. Give a few charcoal briquettes to people for free so they understand that they burn hotter and for longer than normal charcoal.

How make soil briquettes

What you need:

- Anthill soil or clay
- Charcoal dust
- Water

Briquettes made with clay last longer than those made with any kind of soil.

- Mix soil or clay with charcoal dust.
- Add some water and mix it thoroughly.
- Mould the mixture into small round balls or any shape that is suitable for you.
- Put it in the sun to dry.

23rd April 2021