



From Stable to Stove: Manual for Horse Manure Fire Briquettes

Introduction

Horse manure can be transformed into efficient, eco-friendly fire briquettes that rival wood and charcoal.

This manual walks you through each step from collection to combustion so you can produce, store, and burn manure briquettes safely and effectively.

Harness renewable farm waste and reduce your heating costs while minimizing landfill contributions. This is a comprehensive detailed description for making horse manure briquettes. Our associate Maureen Webb makes a much more refined method. (**all the italic items in this list are additional suggestions to how Maureen makes her Horse Manure briquettes**).

Safety Considerations

Before you begin, review these key safety guidelines:

- Always wear gloves, a dust mask, and safety goggles when handling dry manure and binders.
- Work in a well-ventilated area to avoid inhaling dust or ammonia vapors.
- Keep a fire extinguisher or water source nearby



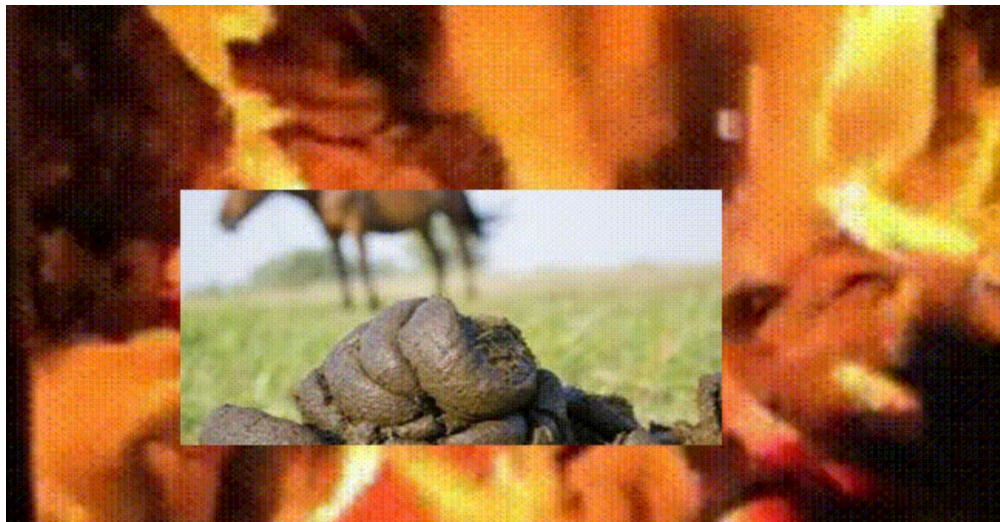
when testing briquettes.

- Wash hands and tools thoroughly after each session to prevent pathogen spread.

Tools & Materials

Gather everything you'll need to streamline production:

- **Briquette Press:** Multimate Briquette Maker MK-II or MK-V
- **Drying Equipment:** Sun-drying racks, greenhouse, or *dehydrator*
- **Mixing Containers:** Large buckets or wheelbarrow



- **Shredding/Grinding Tool:** Hoe, shovel, or small hammer mill
- **Scale or Measuring Bucket:** For consistent ratios
- **Binders:** Sawdust, paper pulp, or clay
- **Water Supply:** For adjusting moisture content

1. Preparing the Manure

1. Collect fresh horse manure daily; *mix bedding (straw/shavings) is okay.*
2. *Spread manure in a thin layer (5–7 cm) on a tarp or drying rack.*
3. *Let it air-dry for 5–7 days, turning every 48 hours to ensure even drying.*
4. When it breaks apart easily by hand and moisture feels $< 20\%$, it's ready for grinding.

2. Grinding & Screening Optional

Component	Weight Ratio (%)	Notes
Dried Manure	70	Fine-ground, moisture < 20%
Binder (e.g., clay or sawdust)	20	Sawdust adds energy density; clay adds solidity
Water	10	Adjust to achieve moldable

1. Break dried clumps with a hoe or hammer or mixing paddle mill to particles ≤ 5 mm.

2. Sift ground manure through a coarse screen (10 mm mesh) to remove large debris.

3. Collect fine particles; discard or compost oversized fragments. Aim for uniform texture to ensure dense, consistent briquettes.

For more information scan this QR code to go to our website.

3 Mixing & Binding

Achieving the right binder ratio is crucial for briquette strength and burn quality.

- Combine manure and binder in a mixing container.
- Gradually add water while stirring to form a pliable, non-sticky dough.
- Rest the mixture for 10 minutes to let water distribute evenly.

4. Pressing Briquettes

- Fill the press mold with mixture, packing firmly by hand.
- Begin the pressing by lowering the pressure plate and compress the briquette, add more mixture to make the finished briquette about 75mm thick.



- Apply pressure until material extrudes as a smooth, solid log or block.
- Carefully eject the briquette onto a clean drying surface.

5. Drying & Curing

Proper drying prevents mold and ensures complete combustion:

- Place briquettes on drying racks with 2–3 cm spacing.
- Air-dry under sun for 7–10 days, *turning every 48 hours*.
- *For faster results, use a dehydrator set to 60 °C for 12–24 hours.*
- Briquettes are ready when they snap cleanly and weigh < 75% of fresh weight.

6. Storing Briquettes

Maintain quality and safety in storage:

- Store in a dry, ventilated shed or airtight bins *with silica gel packs*.
- Stack briquettes on pallets to keep off damp concrete.
- Inspect monthly for mold or insect infestation; discard compromised units.

7. Burning & Usage

Horse manure briquettes light easily and burn steadily:

1. Pre-heat a small fire bed with kindling or starter cubes.
2. Nestle briquettes on the embers, allowing edges to catch flame.
3. Adjust airflow to maintain a temperature of 350–500 °C.
4. Expect 2–3 hours of consistent heat per briquette, comparable to hard

Scenario	Manure (%)	Binder (%)	Water (%)
Maximum Strength	65	25	10
Fast Burning	75	15	10
Hybrid Fuel	60	15	10

wood logs.

8. Troubleshooting Maureen has had little or no problems.

Common issues and quick fixes:

- **Crumbly Briquettes:** Increase binder by 5% or reduce drying time slightly.
- **Poor Ignition:** Pre-drill small holes through briquette for better airflow.

Using the wooden dowel available for the MK-V press

- **Mold Growth:** Ensure initial moisture was < 20% and store in drier conditions.
- **Low Heat Output:** Blend in 10% wood chips or shredded paper for extra energy.

+10% wood chips for extra heat

How to use the Multimate MK-II

Fitting the press together,

First unbox the press, you can use all the packaging materials for making briquettes. Unwrap the basket and legs. On top of the basket handle is a mark to show that is the top and place it in the press with the mark facing up. Bolt the legs onto the press and tighten the M10 bolts with a 17mm spanner. You can adjust the height by adjusting the leg position on the press. We now have additional extension legs



available to raise the press even higher. Available from our shop.



Making the pulp

There are various materials that can be used for making briquettes from wastepaper through to horse manure. (there is more information on making horse manure briquettes on our website.



Paper and Cardboard

Shred the paper and cardboard into a large metal container (small dustbin)

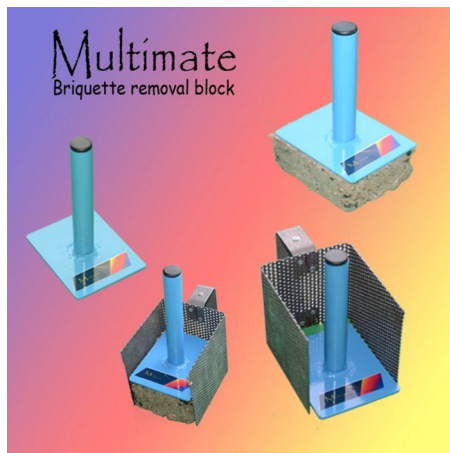
Avoid using too much coloured printed glossy paper. Add water and allow to soak for a while.

Using an electric

drill attach the mixing paddle supplied with the press to break up the paper, turning it into a mushy pulp (not too wet) You can add sawdust or wood shavings, even coffee grounds have been used.

Once you have filled the briquette basket with the pulp you can start the compressing by lowering the briquette arm and locate the pressure plate into the basket.

Compress the briquette until all the water has drained out. You can



now add more pulp and press again until your briquette is about 3/4's full after compression. Raise the arm completely so that the basket is free. Remove the basket from the press and slightly ease the sides of the basket apart and remove the briquette. We also have a removal block which can make it easier to remove the newly made briquette, this helps to stop any of the briquette breaking away. The removal block is available from our shop if required.



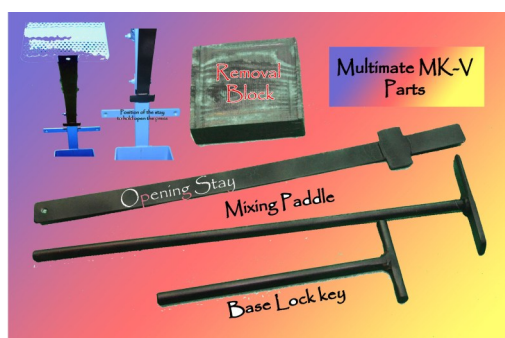
Once the briquette is made set it on a drying area with plenty of air around it to allow through drying, it is best to keep the briquettes off the ground and put on racks to allow drying.

The New Multimate MK-V briquette maker



Over the last eighteen months or so we have developed the Multimate MK-V briquette Maker, it has a larger basket size and a little easier to operate. We first developed the wall mounted version for 160€, with high demand for a freestanding version, so we added legs for the MK-V to our list of accessories. The MK-V is made from 3mm mild steel with

a briquette chamber of 120 x 120 x 200mm allowing for a much larger briquette of 120 x 120 x 175mm briquette. Unlike the MK-II the basket is not removable and the briquette is removed with the aid of a wooden removal block, making it slightly quicker to use.. The MK-V comes with a range of additions items shown here.



Our briquette makers have been sold around the world and we have sold over 1000 presses (to date June 2025) So far we have had no complaints or disappointment. We have sold presses to two UK prisons why and what for I have no idea, maybe to keep the cells warm or

more like for relieving stress, we have also sold to many rehabilitation centres.

Over the past year or so the making of horse Manure briquettes has become the main area of our sales, with many stables purchasing our presses.



This year 2025 we have been awarded the following, the **Greater London Enterprise Awards 2025** their merit led research and evaluation process the **Multimate Paper Briquette Press** has been recognised as the deserving recipient of **Briquette Maker Manufacturer of the Year 2025 and the Heating Innovation Excellence Award 2025** we will receive more information in September.

Our Website contains far more information and our Forum again has lots of information for you. And our videos on Youtube can show you visually how to operate our presses. You can also join us on Facebook to get to know more people like yourselves who are always happy to help with any queries you may have about our presses.

There is more information on our website and videos at youtube follow the QR code below.



Multimate Hauptstr Seekirch 88422 Germany tel: +49 75827689990