



MAKING YOUR HAY BALE USING A BOX BALER

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For livestock farmers it is essential to provide feed for their animals at all times. Feeding is needed for their growth and reproduction, as well as production of farm products such as milk. During times of drought, they need to have bales available.

Materials

Farmers can now make their own square/ rectangular bales using a **BOX BALER**. The box baler can be made of wooden planks or any plastic container.

Box baler sizes: There are two sizes of wooden plank balers: **Big Box Baler** has a length of 100 cm, 50 cm width and 40 cm height. **The Small Box Baler** is 75 cm X 50 cm X 40 cm, length, width and height respectively (See Figure 1).



FIGURE 1: Box Baler made by Khulekani Xaba of Alien Invasive Species for the Department

The farmer will need to cut grass or any material to be baled at the correct growth stage, and leave it to dry. Rake it together for ease of collecting.

Method

Begin by laying ropes across the inside of the box. The number of ropes depends on what the farmer is baling, with fewer ropes for baling maize stover and more for baling grass. Figure 2 show the ropes in the box.

After laying the ropes, the box can be filled with available material such as grass or maize stover. The material to be baled should be dry so that it does not become mouldy, which may result in nutritional disorders.



FIGURE 2: Laying the ropes before filling with maize stovers

Once the box is full, it needs to be pressed down so that more material can be added. Compacting can be done by feet or create a presser that will fit well in the baler (See Figure 3).



FIGURE 3: Compacting the material when making bale

Once filled to capacity, the Box Baler needs to be lifted on the side and the bale pushed out (See Figure 4).

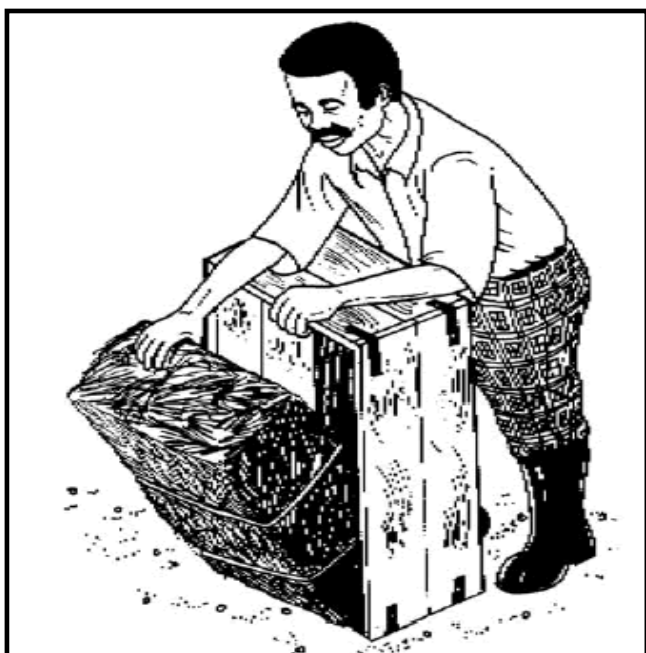


FIGURE 4: Removing the bale from the box

Storage

The bales can then be stored properly and used when necessary.

Advantages of Box Baling

i) Maize stover can be collected, baled and

stored in a smaller space than when just piled up.

- ii) Hay bales can be used for supplementing livestock during feed shortages.
- iii) When cutting grass at home, it can be baled so that it is used to feed animals rather than going to wasted.
- iv) There is no need for tractors and expensive baling equipment, as just the brush cutter or sickle can be used to cut grass.

Disadvantages

This is labour intensive when cutting is done by hand and it will take time to collect sparse material to fill the box.

Conclusions

Farmers need to plan ahead for time of feed shortages. The Box Baler is a solution to bale grass or maize stovers, without the use of a tractor. The time it takes to fill the box is really dependent on the availability of material and dedication of workers. However, it is an acceptable technology for available material making small bales despite being labour intensive

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