#### Rolling hay feeder

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#### Description

This is an enrichment item that I've been wanting to build for a really long time but I

haven't had the materials to do so as it involves a very large wooden spool. This rolling hay feeder is built using a very large spool and wire mesh to create a device that you can fill with hay which the animal has to roll around in order to get at the hay inside. Hay can be easily added to the device through a trapdoor in the top. This rolling hay feeder is sturdy, durable and very good at simulating grazing in a variety of ungulates. and just because I used a large spool in this design, doesn't mean you can't use smaller spools using the same design for smaller ungulates.



## **Building Materials**

- A very large 5 foot tall by 4 foot across wooden spool
- Plywood
- 1 4"x4" post

- 1 2"x4"
- 2 Hinges
- 1 Barrel bolt lock
- 1 lock
- 4"x4" Wire mesh (1"x1" was used in the picture above, but after use it was clear that larger holes in the wire would be optimal to allow animals to access all the hay)
- Galvanized staple nails
- Screws
- Drill with Bits
- Circular saw
- Tape Measure
- Wire cutters

## **Building Instructions**

1. The first thing you want to do to build this rolling hay feeder is find a spool large enough for the animal you want to use this for.

Once you have done that you can measure the inside of the spool from "Wheel to



Wheel", make sure this is from the inside of one end to the inside of the other.

2. The measurements you just took are going to be the measurements you are going to use for the trap door to put the hay in. To start building the trap door you are going to start by making the frame of the door as seen in the above picture. Cut (using the circular saw) the 2 4x4s to the length

you measured above and then determine how wide you want the trap door to be (this will largely depend on how large the spool is) and then cut your 2"x4"s to that length. Screw these together by putting 2 screws



in each end of the 4"x4" so they go through to the 2"x4".

- 3. Now you should have a frame similar to the one above. Next you are going to build a door for that frame. To do this, measure the width and length of the frame and subtract about 3 inches a side for the width and about an inch from the total length. You can now cut the rectangle door from your plywood using the circular saw.
- 4. Next you can take the frame and secure it to the inside of your spool, making sure it is level and is recessed enough to provide rolling clearance as shown

below. To secure it, sink 6-8 long screws in the 2"x4"s on either side of the frame.

5. You can now attach the hinges (making sure to leave room for the hinges to swing) and bolt



to your door. After you have done that you can screw the backs of the hinges to the spool. Test the door a few times to make sure you secured the hinges in the right spot and the door opens freely.





6. Next you have to do the least fun part of this build, cutting a lot of wire. To do this you need to measure the width of the spool and cut the wire until you have enough to wrap all the way around the spool. Next you need to cut the wire so that it is the correct length on one side. I recommend only cutting it to length on one side as it will stretch as you staple it later. Measure where the wire overhangs the 4"x4" on one side by about 3 inches and cut it to length.

- 7. Next you can secure the wire to the 4"x4" on one end using a thin strip of plywood that is screwed down overtop of the wire as shown in the picture to the right. You will also have to cut the wire shorter width wise so it fits inside of the spool as opposed to the outside for this to work.
- 8. Next you can begin to slowly roll the spool over and hammer in staples to the wood so the wire is tight and secure to the spool all the way around until you get to the other side.





9. Once you get to the other side do the same as you did in step 7, being sure to check if the door still closes and opens with enough clearance. If it

- doesn't, just back the pieces of plywood up a bit until it does. It should look similar to the picture on the right.
- 10. Finally you can look at where the bolt on the barrel bolt is hitting on your
  - spool and drill a hole that will accept the bolt so it can be closed and the door remains shut.
- 11. Once you have done all this all you should do now is roll the spool around and check to make sure there are no sharp



edges create by the wire or the staples, if you find some you can generally just hammer them flat into the wood until they are smooth.

# **Tips/ Comments**

I am very excited with how well this rolling hay feeder turned out and I think it will hold up very well against the abuse it will take from a large ungulate pushing it around. The width of the spool is also very important in this case as too narrow a spool will get knocked over quite easily. Also be sure to lock the barrel bolt in place with a lock as it will secure the trap door in place while being rolled around. Have fun

with the rolling hay feeder and be sure to check it periodically for breaks or any holes in the wire.

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