

We are the BotBuilders our team members are: Katelyn, Kosha, Jack, Jackson, William, Lachie and Corey. Our core values consist of teamwork, gracious professionalism, “our coaches and mentors don’t know everything so we learn together”, don’t quit, resilience is key, what we learn is more important than what we win, commitment at all times, and happiness helps. The case study we are analyzing is guinea pigs being affected by the wire at the bottom of their cages.

A few members of our team either have had or currently have guinea pigs as pets. What they have found is that the skin on their guinea-pigs feet are very soft and sensitive and can easily get hurt by wire at the bottom of their cage. It only took a few hours for one of their guinea pig’s feet to actually bleed due to the wire. The guinea-pig was instantly removed from this cage. We all think that regardless of how big the wire is, that it is bad for their feet as it often causes bleeding and scabs and/or ulcers to form on their feet. This condition is called Bumblefoot and is very painful. It would be like humans walking on glass.

We interviewed Reon from the cavy cottage. He is a professional guinea-pig carer and is also studying to be a vet. We answered some questions relating to our case study. Some of the questions we asked can be seen on this poster.



1)Q. how sensitive are guinea pigs feet? Is the wire at the bottom of their cage bad for them?

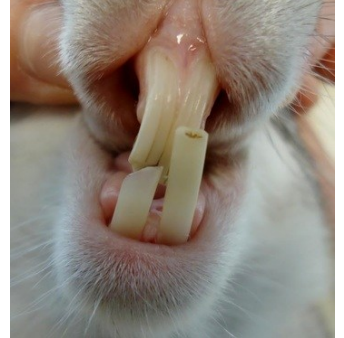
A. Guinea-pig feet are very sensitive. Soft surfaces, like grass or wood shavings is best for their feet. A wire floor in a guinea-pig cage is not good for their feet as it contributes to a condition called Bumblefoot. This is when ulcerations occur to the soft skin which can become infected. This condition can happen in as little as 2 months of a guinea-pig with a wire floor. We do not recommend a wire floor in any guinea-pig cage.



2)Q. Do you currently have a way to protect Guinea Pigs feet from the wire floor?
A. At Cavy Cottage, we use a rigid polypropylene product known as Corflute as a base with wood shavings as bedding as this is very gentle on their feet.

3)Q. Do you know of a method for moving their cages that is safe for both humans and guinea pigs?

A. Cages need to be moved frequently as grass should be a guinea-pig's main food source. Care needs to be taken when moving guinea-pigs in cages with a wire floor as their feet can get stuck or even badly injured. For outside guinea-pigs, we recommend that guinea-pigs can be placed in a small carry cage while their main cage is being moved. Alternatively, if guinea-pig is in a split level cage we recommend that they stay in a top level of the cage so they are not on the wire floor when the cage is being moved. For owners, two small wheels can be placed on one end of the cage while two handles on the other end. The owner can then gently lift and move cage forward. This will reduce any risk of the owners hurting their back.



4)Q. Is it important to keep guinea-pigs nails healthy and clipped to prevent injury?

A. Yes. What can happen is guinea-pigs might accidentally scratch each other and if they grow too long the nail will start to curl can cause them pain. Long nails could get stuck in a wire floor.

5)Q. What type of cage is better for guinea-pigs: wood or metal?

A. We believe that a wooden cage is better for guinea-pigs as it allows more breathing. Metal cages attract more heat which is not good for guinea-pigs.

6)Q. Owners of guinea-pigs need to move their cage several times a day. Do you think a slow moving automated cage with wheels would help guinea-pigs and humans?

A. Oh yes! We know many guinea-pig owners would appreciate something like that.

So that we can share our solution with others we will present our research and solution via a flyer that we will hand out at our competition.