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Study of Farming Guinea Pigs

My name is Anika Brockbank, I am a Senior in The STEAD School. I decided to do a paper about animal healthcare in Peru. I learned about a traditional and cultural food source called Cuy, which is guinea pig meat. Families in Peru believed that Guinea pigs are sacred and have healing properties. It can be used as a sign and prayer of abundance and good fortune. I have researched and found a few things about Farming guinea pigs that are harmful to humans, and the Guinea pigs themselves. I decided to do a paper on this to talk about, and show, how we could make Cuy farming a much safer, and healthier job.

Guinea pigs have been farmed in Peru, being used as a food source since 5000 BCE. They are not a Staple food, but they are used in religious and traditional cultures. Cuy is used in many recipes, but is usually served fried alone, or with things like Quinoa. One of the most popular is fried, roasted or grilled, with rice, potatoes, corn and hot sauce on the side. But that does not mean that there are no issues or problems with farming them after all this time. There are such things like the waste left from feeding guinea pigs, and other things like breeding and genetic problems. Guinea pigs also carry multiple different diseases, which can harm farmers. After a lot of research, I have found a few ways to solve some problems, and some theories on how to make some things better.

Guinea pigs have been bred and genetically modified to grow better, and be stronger or healthier. But that does not mean that they aren't immune to diseases, or to carrying them. Guinea pigs have many different diseases, many being carried like how Prairie Dogs carry the plague. There are many diseases that they can transfer, most actually being Zoonotic, meaning it can be carried onto people as well. They have many diseases, which I have found most on the “*Stanford Medicine Children's health*” website, which quotes; “These pets can carry salmonella; lymphocytic choriomeningitis; Yersinia pseudotuberculosis, which causes an infection that mimics appendicitis; Campylobacter; Trichophyton mentagrophytes; Hymenolepis nana; and Trixacarus caviae, a parasitic skin infection found particularly in guinea pigs.” This is just found in domestic Guinea Pigs, but there are bound to be many more in farming guinea pigs. This causes the farmers to be in danger of being harmed by what they farm.

Sadly there is no way to guarantee the change or stopping of a disease, but there might be a way to try to stop farmers from being killed. Many farmers, around 40,000 people in general (not enough info on farmers alone), are killed every year by diseases Guinea pigs carry, but if we could make vaccines to stop, or at least slow, the ways farmers are infected, then there would be less deaths. One of the main killers is salmonella, which a lot of animals have a vaccine for. There are only small cases of a vaccine for humans, and only with special licenses and in certain doses. We could make a human-safe salmonella vaccine, which would be safe and accessible to Cuy Farmers.

Guinea pigs have been bred for thousands of years, and have been farmed for a long time too. But their farm waste is quite high, with all the food they need to eat and their feces. Normally, a Guinea pig makes a lot of feces and leaves a lot of food left over from feeding periods. Their waste is basically useless to the farmers, so they usually throw it out. With millions of Guinea pigs farmed each year, their waste most likely gets everywhere. Its not a big problem, but one that can actually help farmers.

One solution I found to this is composting, Which a few organizations have started. But I don't think they use Guinea Pig food (there is not enough information). Though with all the feces and food waste they make, they'd need either a large compost area, or multiple compost bins. But it would help make fertilizer, and solve a little bit of the random, wide spread waste the Guinea pigs make. The fertilizer that would be made could help all the agriculture in the area, and can be sold in high amounts for funding. Since Quinoa is a staple plant for Peru, and needs a lot of nutrients, you could make fertilizer with the Guinea pigs food waste, or waste in general.

These are two problems that I feel like could be solved somewhat easily, that are pretty important. It was interesting to learn about anothers culture and how food changed depending on where you are. So many people in America wouldn't dream of doing stuff like eating Guinea pigs. But it's a part of their culture, and part of their farming. Cuy farming may not be a staple food, but it is a religious and traditional food, which is just as important to a lot of people. I hope this sheds light on what we can do to help with agriculture, and food security in general, all over the world.

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