Which Egg-Laying Substrate Do Crickets Prefer?

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I chose to experiment with cricket reproduction because I have a lot of reptiles and amphibians to feed, and it would be less expensive to breed my own crickets rather than buy them every week. I wanted to find out in which substrate crickets prefer to lay their eggs. I decided to test sand, soil, and felt as substrate materials. I hypothesized that the crickets would lay most of their eggs in the soil. To test my hypothesis, I set up five identical breeding containers. In each container I put an area of sand, soil, and felt for egg laying. I also included a dish of cricket gel, a pile of cricket food, and bent cardboard for shelter in each container. I placed 15 crickets in each container- five males and ten females. Each day I misted the three substrates in each container and refilled the food and gel if needed. Any dead crickets were removed and replaced with a live cricket of the same gender. After one week I removed all the live crickets, took a ½ teaspoon sample from the center of each substrate, and counted the eggs present. On average, the crickets laid 8 eggs per ½ teaspoon of sand, 7 eggs per ½ teaspoon of soil, and 2 eggs per ½ teaspoon of felt. My results were somewhat inconclusive. Clearly, the crickets did not prefer to lay their eggs in felt. However, it was not clear whether they preferred soil or sand. If I were to repeat this experiment, I would use a grid method to take multiple samples from each substrate. I would also use the same surface area of each substrate. Instead of testing felt, I would test breeding mats used by commercial breeders. In a future experiment, I would like to determine the optimum temperature for hatching the cricket eggs.

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