

The Environmental Factor Inc.

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Experiment testing mortality of four different nematodes samples; Phasmarhabditis Hermaphrodita (Ph), Steinerema Kraussei (Sk), Steinerema Feltiae (Sf), Steinerema Carpocapsae (Sc) this testing was done three different protocols methods.

Equipment

5 x 500 ml beakers, 10 x microscope slides, 5 x 100 ml beakers, 10 x stir sticks, 1 count plate

Methods:

- Placed 400 ml of water into beakers, removed teabag gel nematodes from the plastic bag, placed teabag into beakers filled with water. This was repeated for each species of nematodes.
 A sample from each beaker 1ml added to the count plate and the nematodes were counted. The nematodes that were alive were counted.
- 2. Placed one gel ball of nematodes onto a microscope slide, cut the gel ball in half and added 5 ml of water and move the gel ball around the slide to spread out the gel. The nematodes that were alive were counted.
- 3. Placed two gel balls into 100 ml beakers and add 20 ml of water and mix the gel ball and water to make a paste. A 1 ml sample was added to the microscope slid and was observed and nematodes were counted. The nematodes that were alive were counted.

Start time 9:15 am teabag into water and let stand for 15 minutes

| Method 1 | Ph % of the | Sk % of the | Sf % of the | Sc % of the | Notes: |
|------------------|-------------|-------------|-------------|-------------|--|
| time | movement | movement | movement | movement | |
| 9:40 | 10 | 5 | 10 | 12 | The Sk was slow to start moving |
| 11:41 | 25 | 15 | 30 | 50 | |
| 2:52 | 85 | 65 | 85 | 90 | |
| 5:00 | 90 | 85 | 92 | 95 | |
| Method 2 time | | | | | |
| 10:26 | 35 | 15 | 35 | 40 | The Sk was slow to start moving |
| 11:42 | 60 | 40 | 75 | 75 | |
| 2:54 | 70 | 60 | 80 | 85 | |
| 5:10 | 90 | 80 | 90 | 95 | |
| Method 3 | | | | | |
| 11:30 | 45 | 25 | 50 | 50 | This was the fastest way to test the movement of the nematodes would recommend this protocol |
| 3:00 | 60 | 55 | 65 | 70 | |
| 5:20 | 90 | 85 | 90 | 96 | |

Conclusion: All nematodes were found alive and moving as more water is added and time. The 500 ml beaker test simulate teabag placed into a hose-end sprayer. Once the nematodes are sprayed onto soil and watered in the nematodes will work into the soil. This testing proved that placing two gel ball methods is a fast and accurate protocol method to test the movement of nematodes.