

# The amazingness of earthworm poop!

When you take a walk in a garden or a forest, look out for earthworms – the small geniuses! They help plants grow

By Arshiya Urveeja Bose

This is a story about the world's most amazing animal poop! This poop is so marvellous that it helps trees grow big and tall! Don't believe it? I didn't believe it either...till I took a long walk in the forest.

It was a hot, muggy afternoon. I was walking through the forest watching for wildlife. My eyes were playing tricks on me by imagining a leopard's tail hanging from a tree branch. But the big animals were missing. There was no sign of leopards, elephants,

hornbills or sambar deer. Instead, the forest floor was blanketed with thousands of miniature towers made out of mud. What were these peculiar towers, I thought to myself. Who was the engineer that built them?

**Clever ecologist**

My friend, Sarah Johnson, who is a very clever ecologist, knew telepathically about the questions that were churning in my brain.

"The towers are earthworm poop!" she exclaimed. "Earthworm poop is awesome!" Sarah said.

Now, I had never seen earthworm poop before and did not think that any animal's poop could be considered awesome. So, I did what any curious and crazy ecologist would do. I collected a few towers of earthworm poop and took them back to my science lab.

Usually, when scientists conduct experiments, the results are not always clear. Often, our calculations are messy and confusing and we end up quarrelling with one other. But the results of our worm experiment were clear as crystal.

This was not because we are brainy scientists but because our subjects, the earthworms, are splendid creatures.

**The experiments**

In our experiments, we compared the earthworm poop with regular soil that we had collected from nearby. We put the poop in one test tube and regular soil in another test tube. Because we were comparing earthworm poop with

regular soil, we had to be careful that the two samples did not get mixed up. So

**Rich fertiliser**

Did you know that an earthworm poops 90 kilos every year? Imagine a thin and tiny earthworm pooping so much year after year! The earthworm's entire poop goes back into the soil as rich fertiliser that helps trees and plants to grow tall and become strong and healthy.

You see, earthworms are busy recyclers. They break down dead plants and animals. Without the help of earthworms, every plant and animal that died in the forest would stay exactly where it died. Trees, leaves, fruit and nuts would keep piling up and soon we would all be living under the ground. Earthworms decompose all the plants and animals. When the earthworm poops, the poop adds important nutrients to the soil. Our experiment proves this story!

**Gardens**

Our gardens would not grow without earthworms. The trees in the forest would never be tall if the earthworms did not enrich the soil. So the next time you see an earthworm and feel disgusted, think about how they help the soil! When you walk in a garden, remember to look out for these small geniuses! Don't forget that their poop is truly the most amazing poop in the world!

we labelled each test tube clearly with a marker pen. To each test tube, we added colourful chemical liquids that gurgled and burbled away vigorously.

Once the potions had settled down, we used litmus paper to measure the pH of the solution in each test tube. To our surprise, we found that regular soil had a much higher pH

and was more acidic than earthworm poop! Now kids, let me tell you something. Acid is really harmful and plants cannot live healthily in soil that is too acidic.

We were so excited with our first experiment that we did a few more! We found that the earthworm poop was very rich in nutrients like nitrogen, phosphorous and good bacte-

ria. These nutrients help plants grow.

They are similar to vitamin and calcium that humans eat to make us healthy. So from our experiments, we could conclude without quarrelling that earthworm poop was very good for the soil.

(The series is co-ordinated by Kalpavriksh.)



You don't have to believe what I say! Try this experiment out yourself!

Do Your Very Own Earthworm Experiment!

**Materials:**

Bucket, tumbler, soil, water, earthworms, leaves and twigs.

Plant seeds (you can use sprouts or mustard)

**Method:**

Step 1: Fill your bucket with soil till it is three-fourths full. Set it aside in a safe place.

Step 2: Add leaves and twigs to the bucket and mix them with the soil.

Step 3: Add the earthworms to the

bucket. Place them just under the surface of the soil.

Step 3: Sprinkle the soil with a tumbler of water. Use your judgement! If you flood the bucket, your earthworms will drown. If you don't add enough water, they will dry out!

Step 4: Wait and watch! In a few days, you might see your own towers of worm poop!

Step 5: Once your earthworms are active, add some plant seeds to the bucket and watch them flourish!

**Reminder:**

You should water your bucket every day. You can also keep feeding your earthworms with leaves. They are your pets now so look after them!



Height of a worm tower in a forest. PHOTO: SARAH JOHNSON