



Microplastics in soil

What is happening?

Earthworms lose weight when microplastics are present in the soil.

Plant growth is changed by microplastics.

How do we know this?

- Scientists have studied the effect of different microplastics in the soil on the growth of earthworms and rye grass.
- They used acrylic and nylon fibres from clothing, polythene and biodegradable plastic.

Why is this important?

- The quality and quantity of plants depends on the quality of the soil. We eat plants (crops).
- Earthworms are very important in creating good soil. It is possible that microplastics damage the earthworms' digestion systems, stopping them getting the nutrients they need. If the earthworms are not healthy, they may not produce good quality soil.
- There is also the possibility that microplastics could get into plants as they grow and this could be damaging to the animals that eat those plants.

KEY FACTS

Plastic

Plastic is not a natural material but is found in many places in the natural world. There are many types of plastic.

Microplastics

Microplastics are tiny pieces of plastic that are less than 5mm in diameter. They are found in soil. A teaspoon of soil could contain 4-20 microplastics pieces.

Earthworms

Earthworms drag dead leaves and plants underground to eat them and release the substances that plants need for growth back into the soil through their poo!



Farmers use plastic sheets on their crops to reduce the growth of weeds and to protect the soil and the plants they want to grow from bad weather.

What can you find out?

- How many types of plastic can you find?
- What are the properties of the different types of plastic?
- How do earthworms keep soil nice and healthy? Use the QR code to find out how to build a wormery.



<https://schoolgardening.rhs.org.uk/resources/activity/mini-wormery>

