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Plants respond to sounds to find water

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A new study by scientists from the University of Western Australia has discovered that plants have the ability to respond to sounds to find water to survive.

The researches in their study demonstrated how plants can sense sound vibrations from running water moving through pipes or in the soil, to help their roots move towards the source of water. The study also revealed that plants do not like certain noises and will move away from particular sounds.

Lead researcher Dr Monica Gagliano from UWA's Centre of Evolutionary Biology at the School of Animal Biology said water was a basic need for a plant's survival,



Photo for representational purpose

and the study showed that sound plays a significant role in helping plants cater to this need.

Using pea plants as the model for study, the scientists put the plant in a container that had two test tubes at the base, giving it a choice of two directions for the growth of its roots.

"We then exposed the plant to a

series of sounds, including white noise, running water, and then a recording of running water under each tube, and observed its behaviour," said Gagliano, while speaking to *Physics.org*.

The scientists found that the plants could tell where the source of the water was and their root systems grew towards that source based on sensing the sound of running water alone. Dr Gagliano said when moisture was readily available in the soil, the plant did not respond to the sound of running water.

"It also was surprising and extraordinary to see that the plant could actually tell when the sound of running water was a recording and when it was real and that the plant did not like the recorded sound."