What's in the smell of first rain
Petrichor is that Earthly smell released by the first rain after a dry spell.

In the 1960s, two Australian scientists coined the term from the ancient Greek words for “blood of stones.” These scientists, Isabel Joy Bear and Richard Thomas, extracted a yellow oil – petrichor – from dry rocks, clay and soil. It contained fatty acids from plants, including palmitic acid and stearic acid. Though the fatty acids don't smell like much of their own, in soil they get broken down into smaller, smellier molecules like aldehydes, ketones, and smaller carboxylic acids.

The scent of freshly-turned earth also has a name: geosmin. – Geosmin is produced by a group of bacteria called Actinomycetes, though it's unclear why. You can smell geosmin after it rains, or in your garden after tilling soil or watering plants. Our noses are extremely sensitive to this odor: We can detect geosmin at concentrations less than 10 parts per trillion – about a teaspoonful in 200 Olympic-size swimming pools!

So how do these earthly smells reach our noses? – During light or moderate rain falls, raindrops can trap tiny air bubbles beneath them when they hit the ground or other porous surfaces. These air bubbles then force their way to the surface, blasting out in a spray of tiny, aerosolized droplets. Scent molecules from the earth hitch a ride in this aerosol and spread on the wind.

*Why do plants secrete petrichor?

Source:
https://theconservation.com/the-smell-of-rain-how-csiro-invented-a-new-word-39231
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