

## Here's What To Do When Potted Plant Soil Dries Out

Leimone Waite, Master Gardener, April 19, 2019

**Q:** During this wet weather I had plants sitting on my porch that I let dry out, forgetting that they were not getting water like the rest of my yard. When I go to water the pot, the water just runs out but does not get the soil very wet. Is there an easy way to get the soil wet again? Should I use a soil wetting agent?

**A:** This is a common problem with potting soils when they dry out because most of them contain peat moss. This is an important ingredient because it decomposes slowly, is lightweight and retains water/is hydrophilic.



This mint plant's soil became dry and hard. Potting soil can be difficult to re-hydrate because of peat moss in the soil. (Photo: Jessica Skropanic)

However, when peat moss dries out it's very difficult to re-wet. When this happens, we call the soil hydrophobic, meaning it repels water.

It's easy to spot a hydrophobic soil: The water drains out the bottom of a pot quickly but doesn't wet the soil. This is because the water runs between the side of the pot and the hydrophobic soil. This results in only a small portion of the soil becoming wet, leaving the rest of the soil and the roots dry, leading to the plant wilting or dying from lack of water.

Here are a few watering techniques for hydrophobic soil:

1. If you can lift the pot, submerge the whole pot in a bucket of water. Initially there may be so much air in the soil that the pot floats and you will need to hold it down. Air bubbles will form as air escapes from the soil and is displaced by water. Once the bubbling stops, remove the pot from the bucket of water.
2. Set the pot in a shallow container of water, allowing the soil to absorb the water slowly. It may take an hour or more to thoroughly re-wet the soil. Be careful not to leave pots soaking in standing water for more than a couple of hours.
3. For large containers that can't be lifted easily, place a hose in the pot with just a trickle of water. This allows the water to enter the soil slowly enough it has time to be absorbed instead of running off.



Revive dried out soil in potted plants. (Photo: Jessica Skropanic)

During the summer, hard-packed clay soils, soils that were burned and some crusted garden soils can resist wetting, allowing water run-off instead of absorbing it. To re-wet, repeatedly sprinkle the surface lightly, making sure there's no run-off. Eventually the soil will become moist enough to break up. You may also need to break up the surface of the soil if it's hydrophobic due to exposure to fire.

The application of mulch, such as wood chips, and/or compost to the soil surface can help hold moisture in the soil and prevent these dry soil conditions from occurring. Organic matter in the soil helps to soak up and hold moisture. It's also critical for microorganisms.

If you decide to use wetting agents or soil surfactants you can purchase them pre-made or make your own using a liquid dish soap. But soil surfactants or wetting agents are not a long-term solution. They'll need to be reapplied and are harmful to the microorganisms in the soil.

*The Shasta Master Gardeners Program can be reached by phone at 242-2219 or email [mastergardener@shastacollege.edu](mailto:mastergardener@shastacollege.edu). The gardener office is staffed by volunteers trained by the University of California to answer gardeners' questions using information based on scientific research.*