Garden drainage affects plant stress

K-State horticulture expert shares tips to improve drainage

By Maddy Rohr, K-State Research and Extension news service

MANHATTAN, Kan. — In order to reduce plant stress during months where moisture accumulates quickly, Kansas State University horticulture expert Cynthia Domenghini says gardeners should pay attention to how their property drains.

“Poor drainage in the garden can result in waterlogged soil and consequently not enough oxygen for the plant roots,” Domenghini said. “Plants will be limited in how much water they can take up and will suffer as they become stressed.”

Flooding and poor drainage are often caused by soil compaction, grading and erosion.

“While some of these problems may require digging a drain or culvert to re-route water, soil drainage can be improved by incorporating organic matter,” Domenghini said.

Organic matter can help improve water retention, aeration and nutrition in the soil. Peat moss, rotted hay, tree leaves and compost are some options as organic matter, she said.

Domenghini recommends incorporating 2-4 inches of organic matter into the existing soil as deeply as possible, so the plant roots don’t have difficulty penetrating across the barrier created between the organic matter and the old soil.

Domenghini and her colleagues in K-State’s Department of Horticulture and Natural Resources produce a weekly Horticulture Newsletter with tips for maintaining home landscapes and gardens. The newsletter is available to view online or can be delivered by email each week.

Interested persons can also send their garden and yard-related questions to Domenghini at cdom@ksu.edu, or contact your local K-State Research and Extension office.

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K-State Horticulture Newsletter, [https://hnr.k-state.edu/extension/info-center/newsletters/index.html](https://hnr.k-state.edu/extension/info-center/newsletters/index.html)

K-State Research and Extension local offices, [https://www.ksre.k-state.edu/about/statewide-locations.html](https://www.ksre.k-state.edu/about/statewide-locations.html)

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