TEXAS MASTER GARDENER
TEXAS A&M AGRILIFE EXTENSION
Denton County

Gardening Basics

Cotton Root Rot in Rose of Sharon

A likely culprit of wilting and browning in Rose of Sharon is cotton root rot (*Phymatortrichum omnivorum*). The Rose of Sharon is highly susceptible to the fungus cotton root rot (*Phymatortrichum omnivorum*), which is active during warm seasons and advanced by overwatering. Is it possible that you could be overwatering in an attempt to save the shrub? Or could there be an irrigation/pool leak in the area?

Before giving up on your plant, correct any water or drainage issues you may have. Run each zone of your irrigation system for a minute or two. Put on your raincoat and wellies and look closely at each sprinkler head and your entire drip line. Sometimes water will spew like a geyser; you'll also see bubbling water at the base of sprinkler heads or a flowing stream from your drip lines. If you see leaks or misdirected sprays, correct them. Do this check every month you use irrigation.

Phymatortrichum omnivorum, Cotton Root Rot, S.D. Lyda, Bugwood.org

Next, get into the habit of checking soil moisture before running irrigation. Use a screwdriver to probe the soil to a depth of 6-8 inches. If you can probe to that depth, moisture is sufficient, and no watering is necessary. Alternatively, invest in an inexpensive (<$5) soil moisture meter and spot-check your landscape before watering (to the same 6-inch depth).

If you're not able or inclined to manually check the soil, or if you travel, then consider upgrading to a smart controller. It uses your local weather station's current evapotranspiration (ET) readings to calculate irrigation. (ET refers to evaporation that comes from the soil itself as well as from the plant's leaves.) The controller doubles as a rain/freeze sensor, shutting off when temperatures drop below freezing or when local rain exceeds a set threshold. Once installed and linked to your WiFi, these smart controllers can be programmed and adjusted from the controller itself or your smartphone, tablet, or computer.

The following document describes how to possibly save ornamental plants suffering from cotton root rot by using ammonium sulfate to acidify the soil, creating an unfavorable growing condition for the fungus. This option is a last resort but inexpensive and fairly easy, so it might be worth a try. The downside is that you'll have to continue acidifying the soil yearly, which may become tiresome. In short, prune the shrub back. Build a ridge of soil about four-inches high around the tree's drip line. The circumference of the ridge line should be equal to the diameter of the crown/top of the tree. Work into this soil one pound of ammonium sulfate for every 100 square feet of area within the ridge. Fill the ridge with water to a depth of four inches. Repeat this treatment five to ten days later. Limit treatment to twice per season. Refer to the section at the end of the article entitled "Fertilizer Applications."
https://aggie-horticulture.tamu.edu/plantanswers

If your shrub dies completely, and you wish to replant another Rose of Sharon, do not replant it in the same location since the fungus remains active in the soil for years. Instead, plant it in a sun/part-sun location where drainage is excellent. These beauties like moist soil, but not standing water. In its place, plant a flowering shrub resistant to cotton root rot (see link below).

Cotton root rot: https://bexar-tx.tamu.edu/homehort
New Rose of Sharon varieties: https://agrilifetoday.tamu.edu
Trees, shrubs, and flowering plants with resistance to cotton root rot:
https://agrilife.org/bexarcounty/files/2011/12/CottonRootRot.pdf