Cotton Root Rot in Rose of Sharon

A likely culprit of wilting and browning in Rose of Sharon (*Hibiscus syriacus)* is cotton root rot (*Phymatortrichum omnivorum*). The Rose of Sharon is highly susceptible to this fungus which is active during warm seasons and advanced by overwatering.

Before giving up on your plant, correct any water or drainage issues like a possible leak in your irrigation system or pool. Run each zone of your system for a minute or two. Look closely at each sprinkler head and your entire drip line. Sometimes water will spew like a geyser or you may 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. Check every month you irrigate.

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 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 soil moisture meter and spot-check landscaping to the same 6 inch depth before watering.

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 document linked below describes how to possibly save ornamental plants suffering from cotton root rot by using ammonium sulfate to acidify the soil, thus 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 and build a ridge of soil about four-inches high around the plant's drip line to create a basin. The circumference of the ridge line should be equal to the diameter of the crown/top of the plant. Into the soil around the plant, work in one pound of ammonium sulfate for every 100 square feet of area within the ridge. Fill the basin 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 entitled "Fertilizer Applications."
https://aggie-hort.tamu.edu/archives/parsons/publications/cottonrootrot/cotton.html

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 shrub resistant to cotton root rot, such as American Beautyberry or Yaupon Holly:
https://aggie-hort.tamu.edu/archives/parsons/publications/cottonrootrot/shrubs.html

Resources

Rawe, Lynn. "Cotton Root Rot, The Invisible Killer" Urban Program Bexar County, 2004, (accessed May 23, 2024), https://bexar-tx.tamu.edu/homehort/archives-of-weekly-articles-davids-plant-of-the-week/cotton-root-rot-the-invisible-killer/

Taubenhaus, J. J., W.N. Ezekiel, and H.E. Smith "Plants Resistant to Cotton Root Rot", Texas AgriLife Extension, (accessed May 23, 2024) https://aggie-hort.tamu.edu/archives/parsons/publications/cottonrootrot/cotton.html

Walla, Walter J. and Everett Janne, "Controlling Cotton Root Rot on Ornamental Plants", 1982, Aggie Horticulture, AgriLife Extension, Texas A&M System, (accessed May 23, 2024), https://aggiehort.tamu.edu/archives/parsons/publications/cottonrootrot/cotton.html

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