

Why Are My Trees Yellow?



Yellowing foliage on a variety of oaks, river birches, pines and other trees is a common problem in the Red River valley area. Iron deficiency causes the problem, but there is more to it than just a lack of iron. There may be an adequate amount of iron in the soil, but it is not available to the trees or plants because of the high soil pH.

What Can I Do?

First, get your soil tested. Your parish LSU AgCenter Extension office can provide you with what you need to have the LSU Soil Lab test your soil to determine pH and nutrient levels and provide recommendations based on what plants you are trying to grow. If you live in the Red River Alluvial area, chances are your soil pH will be high. If this is the case, the homeowner will need to apply sulfur in some form to the soil to lower the pH. Ammonium sulfate, iron sulfate, straight sulfur or a combination of these will help. It will take about three months after the application for the pH to change. If your soil has a very high pH, the recommendation may call for a considerable amount of sulfur to be added. If you are applying the sulfur to established plants (grass, trees, flowers or shrubs), you may need to split the application. Do not apply more than 3.5 pounds of sulfur/100 square feet per application. So if your recommendation calls for 6 pounds/100 square feet, make two applications of 3 pounds/100 square feet, 10-12 days apart. Also, apply the sulfur when there is no dew on the grass and water it in. For shrubs, flowers and like plants, move the mulch back, apply the sulfur and water it in, then move the mulch back over the area. Continue to monitor the pH, as it will need to be adjusted periodically. Usually, a year later, the pH will be back up near the original number again, due to the calcium carbonate in these soils. To get more immediate color change in the tree's foliage, the homeowner may want to apply iron chelate to the tree crown using a hose-end sprayer. The homeowner will still need to adjust the soil pH, as this spraying will only provide a temporary fix.

Having said this, the best scenario is to plant trees, shrubs and other plants that are suited to this type soil, rather than trying to amend the soil to accommodate particular trees, shrubs or other plants. Following are some trees that are suitable to the high pH Red River Alluvial soils, as well as some trees to avoid.

Trees Suitable for High pH Red River Alluvial Soil

Live Oak	Black Locust	American Elm	Yellow-poplar
Redbud	Cottonwood	Hickory	Sycamore
Red Maple	Sugar Maple	Pecan	

Trees to Avoid in High pH Red River Alluvial Soil

Pines	Black Cherry	Southern Magnolia	Flowering dogwood
River Birch	Most oaks		