Centipede is a popular, low-maintenance turf for lawns that is particularly adaptive to sandy soils in eastern North Carolina, as well as more clayey soils in the Piedmont region of the state. It requires infrequent mowing and little management compared to other warm-season grasses such as Bermuda or St. Augustine. With warm-season grasses now greening up, it is a good time to look at centipede from a fertility management perspective.

In general, centipede is a grass that performs best long-term with minimal fertilization. In many soils, phosphorus index levels (P-I) may already be high from prior fertilization. This may have occurred over time by over-application of phosphorus-rich fertilizers in a lawn or may already exist in new landscapes converted from farmland where fertilizer demand was higher.

Centipede health may decline when soil test P levels are excessive (P-I > 100). Another important point to remember is that centipede needs low nitrogen fertilization, only a half-pound per 1,000 sq. ft. applied once a year around late May to early June. Do not overfertilize it with nitrogen to achieve a dark green turf; it is naturally light-green in color. Nitrogen and phosphorus are the first and second numbers on a bag of fertilizer, respectively, listed as percentage by weight.

“Before planning to grow centipede, it is always a good idea to test your soil first” said Jagathi Kamalakanthan, an agronomist with the N.C .Department of Agriculture and Consumer Services. Unlike other warm-season turf species that can tolerate a soil pH of 6.0 or higher, a soil pH of 5.5 is desired for centipede lawns. High soil pH may occur due to over-application of lime and may exist naturally in coastal counties where soil often contains shell fragments. Frequent use of high alkaline irrigation water, also found in coastal counties, may also result in high soil pH.

If centipede is desired and not established, soil pH can be adjusted by using elemental sulfur (S) at a rate of 5 lbs. per 1,000 sq. ft. to drop the soil pH by 1 unit (for example pH 6.5 to 5.5). For clay soils, the rate can be doubled. These are general guidelines. To speed up sulfur’s reactivity, mixing S well in the top four inches of soil and keeping the soil moist is helpful. Since the overall process is slow, it is important to plan well in advance of establishing a centipede lawn. Soil ideally needs to be resampled in four to six months after a sulfur application to check pH prior to seeding or sod establishment. Precautions and label directions for elemental sulfur use should be followed to avoid any physical harm to the applicator.

In established lawns with high pH, attempts to lower pH by S addition can be made, but success may not be achieved depending on the existing pH level. It is also important to wash S off foliage to avoid burn. Iron deficiency often results from high soil pH and higher-than-desired P levels; yellow color resulting from these conditions can be temporality resolved by foliar iron sprays.

“Where soil test reveals a pH level greater than 6.5, such as often found in coastal counties, or when high phosphorus index levels are believed to be the problem, the best long-term solution may be selection of another grass type such as St. Augustine, Zoysia or Bermuda as these grasses can grow well in soils where centipede struggles,” Kamalakanthan said.

Poor centipede growth may not be due to pH or fertilizer management. Homeowners need to be aware that centipede does not tolerate some herbicides and competition from other grasses can weaken its root system. Insects, nematodes and diseases may cause poor growth, too. Your county Cooperative Extension Service can help you with these concerns as well as those dealing with fertility.

More information on maintenance of centipede grass can be found at https://content.ces.ncsu.edu/centipedegrass-lawn-maintenance-calendar.