

Necrotic Ring Spot



Necrotic ring spot is caused by a root-infecting fungus that affects Kentucky bluegrass and annual bluegrass on golf courses, sports turf, professional landscapes, and home lawns. Although it is not often a devastating disease that kills large areas of turf, moderate to severe outbreaks will disturb the appearance of the turf stand. Necrotic Ring usually attacks sodded lawns but may also attack seeded lawns in both sun and shade. Necrotic ring spot often is considered a disease of relatively young (3 – 10 years) turfgrass stands, but disease development in older turf (30+ years) also is not unusual. Necrotic ring spot is also common in lawns that have layered soil; one to two inches of topsoil laid down over hard compacted native soil, but not mixed together

Necrotic Ring Spot produces circular patches with thinning turf that are yellow to light-green in color and 3 to 15 inches in diameter. The patches can grow up to 3 feet in diameter, eventually turning brown and dying. Because it is a root disease, initial above ground symptoms include die-back from the leaf tips followed by collapse of the leaf and decline of the entire plant. Infected roots appear stunted and necrotic when compared to healthy. Over several years, patches enlarge and turf that was not killed at the initial outbreak site will recover, giving the affected turf what is known as a 'frog eye' symptom. Infection occurs during cool (60 – 75°F) wet periods in spring and fall months. However, symptoms may continue to be expressed during summer months, as plants with infection-impaired root systems suffer drought stress. The expression of necrotic ring spot symptoms in summer often leads to confusion of this disease with summer patch. Damaged areas of turf will pull-up easily.

Core aeration in spring or fall will encourage deep rooting, improving the chance of turfgrass survival and recovery. Relieving summer stress through irrigating properly, implementing a balanced nitrogen fertilizer program, and raising mowing heights to 3" will reduce demands on the root system and help diminish the likelihood of turf decline during hot dry conditions.

