



Brown spots that appear on grass during summer months may be the result of localized dry spot – a condition that prevents water from penetrating the soil.

LOCALIZED DRY SPOT EXPLAINED

BY USGA GREEN SECTION

Ever wonder why some patches of grass turn brown during summer while the surrounding grass stays green? Grass can turn brown for many reasons, but one common cause is called localized dry spot. Localized dry spots develop when the soil becomes water repellent. When water cannot wet the soil, grass wilts and eventually turns brown. Although brown grass can be alarming, playing conditions can still be great.

What causes localized dry spots?

Under certain conditions – e.g., typically hot, dry weather – a waxy coating can form around soil particles. When this happens, water reacts with the soil much like it does with wax paper – it beads up and does not penetrate. Once this waxy coating is present, it is very difficult to get water to penetrate the water-repelling soil.

Are all brown spots a disease?

No. Localized dry spot is not a pathogen infecting the grass. Quite simply, there just isn't enough water in the soil to keep the grass green because of the water-repellant waxy coating that has developed on the underlying soil particles.

Why does this happen to certain areas and not others?

In addition to the weather, a few other factors influence the development of localized dry spot:

- **Soil type** – Sandy soils are most likely to develop localized dry spot. Putting greens and tees are often constructed out of sand which increases their susceptibility to localized dry spot. Also, sandy soils are common throughout many coastal golf courses.
- **Irrigation quantity** – Superintendents work hard to provide firm playing conditions. This often means that grass needs to be relatively dry, increasing the likelihood of localized dry spot.
- **Thatch** – Grass with excess thatch – i.e. organic matter – is more likely to develop localized dry spot.

What can Superintendents do to correct localized dry spot?

First, it is important to recognize that localized dry spot most frequently forms on golf courses that are maintained to provide dry, firm playing conditions. That said, localized dry spot is not always bad. Heavy watering can prevent localized dry spot, but it is not recommended because it produces soft and wet conditions, consumes excess water and puts the grass at higher risk for disease.

Superintendents core aerate and sand topdress throughout the season to control thatch and reduce the likelihood of localized dry spot. To alleviate water-repellant conditions, wetting agents that closely mimic the chemistry of soaps and detergents can be applied so water can penetrate the soil.

Although brown spots that develop because of localized dry spot can be unsightly, rest assured these areas are nothing more than dry grass. Dry grass will typically play firmer than wet grass, so be on the lookout during your next round.