

Low desert forage crop and lawn grass summer scalding

By Oli Bachie, Special to this Newspaper | Posted: Thursday, August 18, 2016 12:20 am

Common forage crop or lawn grass problems during the summer in the low desert region is what is called summer scalding, also called “summer slump.” Summer scalding is the killing or reduced growth of plants due to too much water, particularly during the hot summer days. Summer scalding is very common on alfalfa (see embedded picture), but also occurs to lawn grasses or other low desert forage crops. It commonly happens at the tail end of crop fields or lawns where water may collect and stand for hours after the irrigation has ended. It likely occurs when the soil is saturated for 30 hours or more and the maximum air temperature is high during the saturation period.

Under such conditions, crop or grass roots suffocate due to lack of oxygen, causing plants to die very quickly or begin to disintegrate.

Summer scalding may result in declined growth or poor quality of crops, turf or lawn grasses. In the low desert, declined growth and poor quality usually begins in July and continues throughout the summer season when maximum daily temperatures exceed 90 degrees. High night time temperatures and high humidity contribute significantly to reduced photosynthesis, but increased respiration, resulting in rapidly using up of carbohydrates and hence, reduced growth and poor quality stand. Symptoms of summer scalding include an off-color of the foliage and wilting, even though the soil is wet. It affects the water-conducting tissue of plants and hence, roots die and become brown. The whole plant may die within three or four days after standing irrigation.

Summer scald can be controlled, or its impacts reduced, by providing proper irrigation management including proper drainage, leveling the crop or lawn fields before planting forages or lawn grasses and avoiding standing water on ends of crop fields or within the lawn. Some experts suggest the use of crop or lawn grass types that are more resistant to the conditions that cause summer scalding. Reducing irrigation during summer scald is an alternative management strategy that may be economical depending on the cost of water. Such reduced irrigation is called “deficit irrigation” or “summer dry down” and plays a major role as a water conservation strategy.



Low desert forage crop and lawn grass summer scalding

Summer scalding on alfalfa. Courtesy Photo

Irrigating for relatively short periods when temperatures are high may also reduce the likelihood of scalding. One may also plan to avoid irrigation when temperatures are over 109 degrees Fahrenheit and instead irrigate during early mornings or evenings. Lawn owners and forage crop growers can consult with landscape advisers or local farm advisers for better understanding of summer scalding.