One of the most significant problems facing turf managers responsible for sports fields and grounds at schools and municipalities is maintaining adequate turf cover on high traffic sports fields. Maintaining dense cool season turfgrass cover on sports fields has numerous benefits beyond aesthetic appeal including improving player safety, stabilizing soil and reducing summer annual weed encroachment, particularly summer annual weeds like crabgrass, goosegrass and prostrate knotweed that ultimately revert to bare soil in fall.

There are numerous reasons why even highly competent sports field managers may have difficulty maintaining turf cover on highly used – or “abused” – fields. These reasons may extend beyond the sports field manager’s control including installation of field lights (i.e. day AND night-time field use), not having the option to hold events on a synthetic field where natural turf field space is minimal, limited budget and labor resources, and user groups and management unwilling to take fields out-of-play when turf cover and/or weed encroachment justify renovation and time is required to allow new turf to fully establish.

Conversely, many schools and towns struggle with implementing primary turfgrass management cultural practices; the result is a more rapid decline in turf cover during periods of intense traffic. Primary cultural practices are mowing, fertilization, and irrigation (Turgeon, 1999). Cultivation (i.e. aerification) has traditionally been defined as supplementary but can play a primary role in the management of high traffic sports fields.