Frequent aeration and topdressing will go a long way toward relieving compaction, one of the primary causes of badly worn areas on athletic fields.

Spot Management:

Keeping High-Use Areas in Play

By Bill Whirty

There it is for everyone to see, an obvious problem — the badly worn soccer goal mouth, the left fielder's digging spot from a rainy afternoon, or the line receivers run in practice every day. It mars the aesthetic beauty and playability of a field — it's a point we all hope our turf never reaches. But as sport turf managers, it's a threat we must deal with every season.

How we plan for these occasions and the preventive maintenance programs we develop for these troubled turf areas is the first step in avoiding major damage and keeping the field in playable shape.

Observe

Start by taking inventory of your fields, noting especially those areas that are most susceptible to problems. Unfortunately, as we've all discovered, no two areas are exactly the same, nor do they respond the same. Gather clues to assist in building a program that will keep fields playable.

The best way to manage heavy-use areas is not by replenishing the turf with seed or sod but through proper management to minimize wear. That's easy to say, but difficult to do, especially given the schedules some fields must support.

Use your powers of observation. What soil types lurk beneath the worn spots? Are they allowing good root growth? Does the soil tie up certain nutrients so the turf can't use them? Is the compaction so bad that irrigation is ineffective? Any or all of these problems are likely culprits.
Many of us work with heavy soils, compacted by years of play. Aeration is one strong answer to heavy-use problems. Deep aeration, 7 to 10 inches down, as much as monthly in severe situations, will help the turf more than any other single management practice!

Be careful, however, not to aerate on hot, high evapotranspiration (ET₀) days, as this can severely stress the turf. (ET₀ is the amount of evapotranspiration caused by weather factors combined with the transpiration rate of the given plant.)

Even in a field area that is suffering from all the traffic it receives, soils tests will supply the information on which to build a fertilization program that meets the turf needs. Take soil samples from various sites within each field for testing. Make sure to flag the samples from the problem spots so that you can match the test results with the proper area. You may also wish to add tissue analysis on turf that suffers persistent problems or fails to respond as expected.

Base your fertilization program on these test results, varying the timing and amount of nutrients to meet the specific needs of each area. Supplement your program with an extra application of potassium, as this increases the wear tolerance of the turf.

Make sure you're growing the right grass for heavy-use spots. Make a positive identification of all plant material. Since each grass variety, and the individual cultivars within a variety, have their own strengths and weaknesses, some problems can be alleviated by adding or changing over to a different turf.

Cool-season turf fields are generally Kentucky bluegrass, often overseeded with perennial ryegrass. Turf-type tall fescue also makes a good playing surface, especially for soccer. However, because the blade difference stands out strongly if turf-type tall fescue is overseeded with perennial ryegrass, overseed fescue with fescue.

Both turf-type tall fescue and perennial ryegrass pregerminate well. The pregerminated seed can be mixed with a topdressing material and applied at regular intervals during the season. The newly seeded turf can be up and growing within a week. Seed is an inexpensive investment compared to what a turf manager can gain in keeping heavy-use spots healthy.

Plan field layout to avoid excessive wear. Though few options are available for baseball fields, there are ways to rotate use on soccer and football practice fields. Investigate ways to move wear around. For example, if adequate space exists at the end of the field, you may be able to shift the entire playing surface 10 to 30 yards in both lengthwise field directions. This spreads wear over three spots, rather than one. Renovate the original worn field while the heavy-use location is rotated to another portion of the field.

Whenever possible, work with park planners and school district consultants to be a part of the solution that allows the facility to be used at its designed capacity.

Keeping turf healthy turf in heavy-use and high-traffic areas is among the toughest challenges you face as a turf manager. Making it work — keeping the field safe and playable — will bring you the satisfaction you deserve.

Editor's note: Bill Whirty is the city park supervisor for Fort Collins, CO, and active member of both the national Sports Turf Managers Association and the Colorado Chapter STMA.