Turf may be the first impression of a baseball or softball field, especially when striking patterns are etched in that sea of green. But when it comes to playing the game, the overwhelming majority of the action takes place on that turfless patch of “dirt” – the skinned area encompassing the basepath, bases, home plate and the skinned area at the centre of the jewel where the pitcher reigns.

In baseball and softball, as in all field sports, ideal conditions take the field factor “out of play,” allowing each player, regardless of age, gender or experience level, to play the game to the best of their own abilities.

Ideal conditions for the skinned area surfaces along the basepath combine a lower layer of hardness with a cleat-depth coating layer of soft material to provide the traction necessary for a player to round the bases at full speed and the cushioning that protects the player in a slide to beat the ball to the base. Ideal conditions offer smooth transitions between the skinned area and surrounding turf with no ridge or lip to alter the path of the ball and thus influence the outcome of the game. Ideal conditions strike the right balance between wet and dry moisture levels, providing a playing surface that is neither sticky or powdery.

The Big Picture

The American Society for Testing and Materials (ASTM) has multiple subcommittees examining various aspects of achieving higher levels of safety in sports. Dr. Don Waddington serves as Chair of the Natural Playing Surface Subcommittee, which is within the Sports Equipment and Facilities Committee of the ASTM. Dr. Waddington is Professor Emeritus of Soil Science at Penn State University after retiring from his role teaching and conducting research in the University turfgrass program.

Dr. Waddington notes, “Subcommittees are working on standards and guidelines for everything from bikes and in-line skates to gymnastics and camping. A subcommittee working on tennis courts and track surfaces has developed guidelines for grass tennis courts. There’s a group looking at specifications for pole vault landing pits and a group under playground surfaces looking at new standards for specification of engineered wood fiber for playground surfaces. One group is studying the shock absorbing properties of North American football fields. Another group is studying the relative abrasiveness of synthetic turf surfaces. There’s a task group under the subcommittee on footwear looking at a method of measuring traction. There’s a group looking at eye protection. The whole aim is to have more safety in sports.”