

**Table 2:** The accepted standards for soccer field quality determined by the Sports Turf Research Institute, Bingley.

Measurement	Acceptable Levels
Rebound resilience (%)	
Low level of play	15 - 55
Medium level of play	20 - 50
High level of play	25 - 38
Surface hardness (g)	
Preferred	20 - 80
Acceptable	10 - 100
Traction (N.m)	
Preferred minimum	25
Acceptable minimum	20
Ball roll (m)	
Preferred	3 - 12
Acceptable	2 - 14
Surface evenness (mm)	
Preferred maximum	8
Acceptable maximum	10



## New GTI Director Appointed

The Advisory Board of the Guelph Turfgrass Institute (GTI) has announced the appointment of Rob Witherspoon as Director of the Guelph Turfgrass Institute. He becomes the first full-time Director of the Institute.

After completing B.Sc. (Agr.) and M.Sc. degrees from the University of Guelph, he worked as an instructor in the turfgrass management program at Fairview College in Alberta. He returned to Guelph to manage the Independent Study Ontario Diploma in Horticulture program. Rob was appointed Assistant Director of Independent Study in 1989. Most recently, he was the Director of the Ontario Horticultural Human Resources Council. Rob will be working to enhance and expand GTI programming and services for the turfgrass and urban horticulture industry.

"GTI was developed as a result of the foresight of turfgrass professionals," says Witherspoon, "I plan to help fulfil their vision of a centre for excellence in turfgrass education, research and the promotion of turfgrass as an integral component of the landscape."

and their relationship to the actual player acceptance of the surface during a game within two hours of the time of measurement, Canaway and his associates have devised a table of acceptable standards for each of the tests on soccer fields (Table 2). The range of preferred values is sufficient to include the range of values found in the three field positions where the measurements were made. Likewise the range in values for the acceptable field is wide enough to include changes due to weather conditions.

Use of the standards developed in the U.K. could serve as a basis for evaluation of field conditions in Canada. No doubt some adjustments in the values may become necessary as more data is accumulated. The study also serves as a base from which to develop standards for other sports using turf, such as field hockey and rugby football. One would expect the standards to be similar.

Development of procedures and standards for Canadian conditions would be a large step toward consistency between venues for games. As a result the outcome of the game would be a factor of the ability of the team, not the condition of the field.

A further use of the methodology and associated standards would be in the field renovation and new construction. Design

systems and material selection for the rooting zone would have to produce a playing surface which met the accepted standards.

(Summarized from: Canway et al. 1990. *ASTM STP Pub. 1073*, pp.29-47, R.C. Schmidt et al., Editors.)

## Alternative Procedures

Steve Cockerham, a turf researcher at the Univ. of California, Riverside has developed an alternative method for measuring football rebound resistance.

The Canway procedure (see article opposite) involved the dropping of the ball through a set vertical distance, with a visual recording of the height to which the ball bounced. An additional measurement was used for ball roll by recording the distance travelled by the ball after rolling down an incline.

Cockerham's procedure determines both parameters in one operation. The ball is rolled down an incline and the height of the bounce as the ball hits the turf surface is recorded by a "hop indicator." The "hop indicator" is a stand with a series of horizontal aluminum bars set on roller bearings positioned at two cm intervals along the height of the stand. The stand is placed one meter from the base of the ramp.

As the ball bounced at the base of the stand it deflects some of the bars; the lowest bar deflected was taken as the measure of the ball bounce. The distance the ball rolled from the base was recorded as the distance of ball roll.

While the distance rolled may be slightly less due to energy loss from deflecting the bars, the Cockerham procedure has the advantage of dropping the ball on to the turf at an angle which is closer to the contact angle of a kicked ball with the turf.

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