

Sports Turf Manager

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Sports Turf Managers Must Address the Challenges of a Diverse Sport Loving Population

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Canada is a diverse country with a long history of sport and involvement in athletics. Too often when categorizing Canadian sports, the popular opinion is that hockey dominates the Canadian sporting culture. While this is true when speaking about spectator sports, other sports are very significant when participation in a sport is taken into account.

Despite Canada's tradition of sport participation, a survey conducted by the Ministry of Heritage in 2010 and published in 2013 has shown that both the percentage of Canadians participating in sport and the total number of Canadians participating in sport is declining.

There are many factors that play into the participation rates in Canada including economic status and education level. One very interesting conclusion from the report is that recent immigrants to Canada participate in sport at the same rate as Canadian born residents. This shows that the decline in sport participation is not due to immigration.

THE KEY TO MANAGING MULTI-USE FIELDS IS TO UNDERSTAND THE SPORTS BEING PLAYED AND THEIR RESPECTIVE WEAR PATTERNS.

Amongst adults, golf is the most participated in sport in Canada, followed by hockey. The third most popular sport in terms of participation is soccer, but for youth, soccer is by far the most popular sport with close to double the participation rate compared to the next two, hockey and swimming.

One of the most interesting facts from the survey is that participation in sports not listed in the top 25, exceeds that in the most popular sport. This survey provides evidence of what

sports turf managers throughout Canada have already known. The diversity of sport in Canada is large and this presents a challenge to sports turf managers to provide safe accessible sports fields for a varied array of sports.

Much of sports turf research is performed on sport specific fields primarily for high-level stadiums and for high school sports in the United States. In Canada most fields are multi-use fields that must host a number of different sports with different demands, wear

CONTINUED INSIDE ON PAGES 7-9



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Sports Turf Managers Must Address the Challenges of a Diverse Sport Loving Population *Continued from page 1*

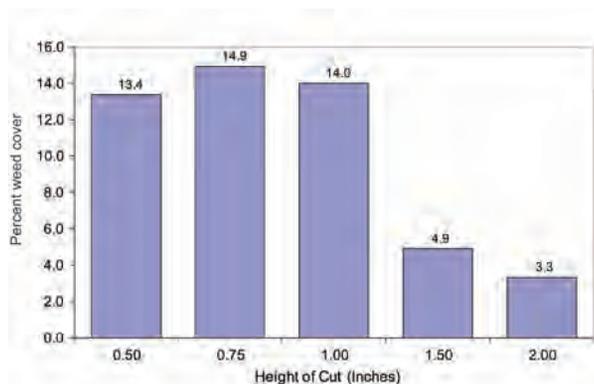


Figure 1. Percent weed cover of plots of Kentucky bluegrass cultivars mowed at different mowing heights. Each bar represents an average of four replicates.

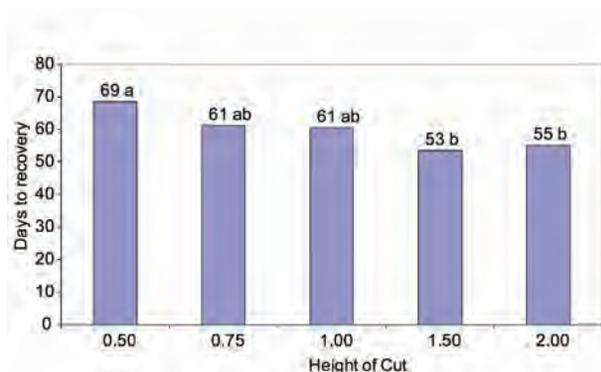


Figure 2. Days to complete divot recovery of Kentucky bluegrass cultivars mowed at different mowing heights. Each bar represents a recovery of four divots per cultivar.

patterns and user groups. What follows is a summary of factors that sports turf managers should incorporate into their programs in order to serve their diverse client base, based on a few of the sports they may encounter.

Soccer

The popularity of soccer in Canada particularly amongst youth, the most active segment of the population in sport, requires that management of multi-use fields must take into account the demands of soccer user groups as it is likely the game will be played on most fields at some point in time. Soccer has some advantages with regards to management, in that the field dimensions for the fields are somewhat variable, meaning it can fit on fields designed for other sports (Figure 3). In addition, different age groups play on different size fields. One common practice on soccer fields is to run two youth fields across each half of a full-length adult field. In order to help with preservation of the sidelines of the field, whatever the sport may be for the full sized field, make sure that the goalmouth of the youth field is beyond the sideline of the full sized field's sideline. This necessitates that lines be painted differently for the two different fields, but the increased quality of the sideline of a multi-use field may be worth it.

Soccer is a popular sport with a highly organized administrative structure. This leads to soccer being the most likely source of special requests and also complaints. Soccer teams often request low mowing heights for their sport. This is very difficult to achieve even with the new dwarf varieties of Kentucky bluegrass available. Research conducted at the Guelph Turfgrass Institute showed that low mowing heights on both dwarf and regular varieties of Kentucky bluegrass led to more weeds and slower divot recovery (Figure 1, 2). The lack of access to traditional herbicides limits our ability to achieve the desired quality under current budgetary constraints. This is while other sports are also requesting use of the fields, increasing the wear and tear. Soccer, with its administrative structure, makes it one of the easier user groups with which to

open lines of communication to explain the realities of sports turf management.

Football

Football is the second most popular field (non-diamond) sport in Canada with respect to participation. Most of this is youth participation. Football has very rigid field dimension requirements and has permanent goal posts on each goal line. Football also has a predictable and defined wear pattern. If soccer and football share a field, considerable efficiencies can be achieved by concentrating overseeding and aeration events to the centre of the field, where the majority of the wear takes place. Often portable soccer goals are placed in front of the football goal posts. This preserves the goal line but also creates a wear spot on the 5-yard line where the ball is placed for the point after touchdown conversion (Figure 4). Often football is very seasonal and this provides opportunities to heavily overseed and repair divoting before the soccer groups begin to use the fields. It is important to focus overseeding on the centre of the goal line and out to the 5-yard line if a field is used by both soccer and football.

Rugby

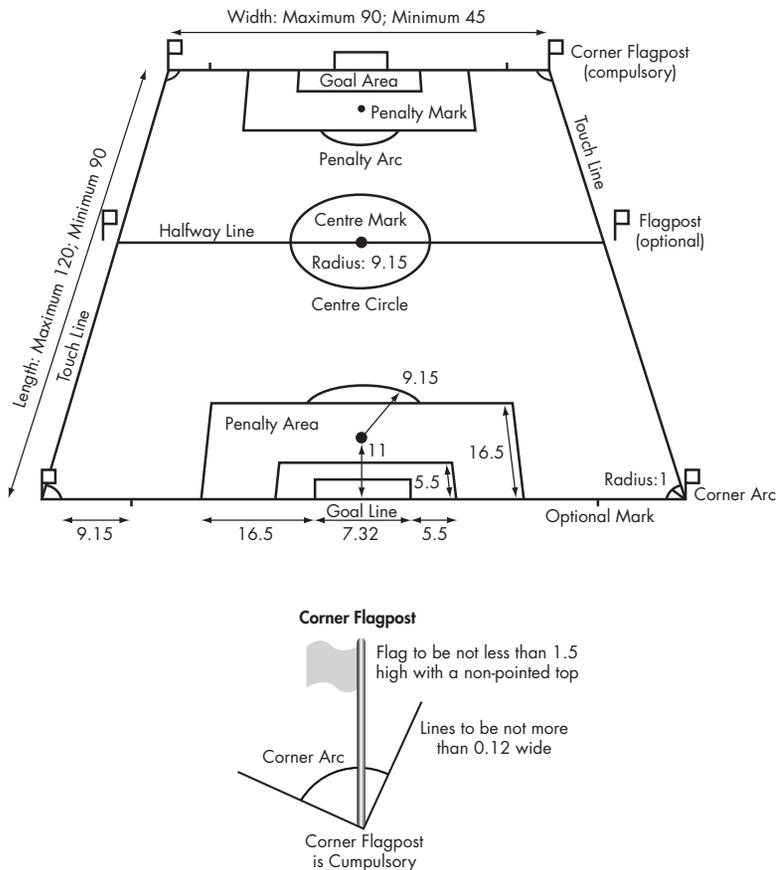
Rugby is in the top 25 of participation sports in Canada and although it has goal posts it does have flexible field dimensions that allow it to be played on a number of different sites. This is how the Canadian national team is able to play at BMO Field in Toronto. One of the aspects of rugby is a less defined wear pattern than football and soccer. This lessens the intensive wear down the centre of the field but also makes it harder to concentrate management practices when it is being played on a shared field. One of the crucial spots on a rugby field is between 5 and 10 meters from the sidelines as that is where many of the scrums take place on the field. This is important when considering the placement of youth soccer fields discussed earlier. Generally rugby has a culture of field preservation and can be a user group that is amenable to

10.0 FIELD DIMENSIONS

10.11 Soccer

All dimensions are in metres. Diagrams not to scale.

Figure 3. A diagram of acceptable soccer field dimensions reprinted from the Sports Turf Association's Athletic Field Construction Manual.



Canadian Soccer Association • www.canadasoccer.com • (613) 237-7678
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Figure 4. Wear from a soccer goal being placed in front of football goal post and the resulting wear spot on the 5-yard line of the football field.



Figure 5. Excessive wear caused by repetitive drills on a field shared by rugby, lacrosse and soccer.

opening lines of communication with regards to field preservation. Despite this, rugby is a physical sport and has drills that can cause severe damage to a field if they are repeated on one area of the field (Figure 5).

Lacrosse

Although lacrosse is the national sport of Canada it is not as popular as many other sports across all age groups, but the participation by youth is similar to that of football and rugby. Lacrosse can lead to a number of interesting wear patterns, particularly from drills and practices. Lacrosse also has a very small goalmouth creating extensive wear in the vicinity of the net. In addition to the foot traffic there is the added damage from the sticks. Lacrosse is also played indoors and coaches and players may be less aware of the need for field preservation during practice because they are used to practicing on synthetic surfaces (Figure 6). One thing to remember about lacrosse is that the goalmouth is 13 metres from the end line. This places the goalmouth just beyond the penalty spot in soccer. If soccer and lacrosse must share a field it is important to stress the need for the lacrosse team to move the goalmouth off the field whenever possible during practice and drills.

Cricket

Cricket is not in the top 25 sports in Canada but with recent immigration from



Figure 6. Circular wear pattern in the middle of a field caused by a lacrosse drill that used the soccer centre circle as a reference for the drill.

commonwealth countries it is one of the fastest growing sports in Canada according to the Cricket Canada website. For sports turf managers, one of the most important things to note is that the cricket pitch refers to the area where the ball is bowled to the batsman and where the wickets are located. Traditionally cricket pitches are mowed extremely low and the soil is compacted to provide an optimum bounce of the ball when bowled. This is unachievable with most municipal budgets and is only sustainable for the occasional competition. For this reason cricket pitches are often made from other materials such as synthetic turf and in other cases they can be constructed from clay materials similar to those used on clay tennis courts. Their small size with respect to the entire playing grounds makes this more economically attractive. Placement of cricket pitches is crucial as they must be surrounded by large fields but cannot be on the fields of play of other sports. They can be placed between two soccer fields or in the centre of two baseball or softball fields that have an area between their fences. Generally cricket players favour a smooth field so they prefer to be paired with sports with limited divoting of the field such as baseball, softball and even soccer. Pairing them with football, rugby and lacrosse is less desirable.

Ultimate Flying Disk

One sport that is popular amongst young adults is ultimate flying disk. Ultimate began as a counter culture sport in the late 1960's and 70's and is popular for its inclusive nature and its intent to not be overly competitive. One issue with ultimate is that it is played by young adults who as a group are the most abusive to fields with regards to wear due to both their size and athletic ability. In addition the most damaging part of the sport to fields is the rule that requires the players to pivot to avoid the defense. This pivoting causes severe turfgrass damage because most of the athletes are wearing cleats. Ultimate was originally supposed to require no special equipment. The wearing of cleats while playing ultimate causes much more severe wear than even physical sports such as rugby and football. In addition the demographic of groups that play ultimate, allow them to book lighted fields later for night play allowing for more wear on the fields.

Ultimate leagues are often run as for-profit social leagues so dealing with issues regarding wear can be addressed in a number of ways. One is to make sure that the organizer of the league is aware of the additional costs of excessive wear the sport may cause. In addition, a premium fee can be charged for sports dominated by adult social leagues run as a for-profit endeavor, thus assuring that sport is available to youth at an affordable rate. Finally sports such as ultimate that can cause severe wear can be segregated from the other sports so the actual wear and costs of recovery can be calculated so that appropriate fees can be determined and charged.

Summary

Canada has a diverse sporting history and unlike our neighbours to the south, most of our fields undergo constant use through the entire growing season and are used by multiple sports. The key to managing multi-use fields is to understand the sports being played and their respective wear patterns. This allows the

turfgrass manager to work with the booking manager of the fields to make sure that sports that can optimize efficiencies with respect to wear can be placed together.

One of the goals of the sports turf manager in Canada should be to provide sport for the diverse multicultural sporting community that resides here. In order to do this the sports turf manager must understand the sports being played. Managers must also open lines of communication with the user groups. The specialized user groups need to be listened to and in return they must be educated as to how their sport affects the fields and what they can do to preserve the integrity of the fields for their own sport and for other user groups. •

Sport Participation 2010 Research Paper, Canadian Heritage, February 2013
http://publications.gc.ca/collections/collection_2013/pc-ch/CH24-1-2012-eng.pdf



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