Heather Mackinnon is Head Groundsman at Murrayfield in Edinburgh, the home of the Scottish Rugby Union. Here in this Learning Experience article she compares her work at one of the world's leading sporting arenas to that of her colleagues in the golf sector.

This way that way

Above: Although the turf maintenance regimes are similar to golf, on match days, Murrayfield gets some concentrated wear and tear.

The Scottish team have just finished training and are packing their bags ready to travel to Italy for their very first Six Nations Championship match. It has been rather hectic for the last few days with extra training sessions for the under 18's, under 19's, under 21's, the A squad and the National squad. It's a great challenge; never did it occur to me when I was working at Ratho Park Golf Club as a youth trainee greenkeeper that I would aspire to such a prestigious job. When at school I detested the thought of working in offices or any form of indoor vocation. I wanted to work on turf, especially on a football ground. Unfortunately, when I left school, I could not find any opportunities in groundsmanship but was informed of a trainee greenkeeper position at Ratho Park Golf Club. Walking up the drive for the first time was rather daunting but it looked very impressive. The straight lines on the greens, the general presentation, I was hooked. I wanted to learn all about it and do all the operations a greenkeeper was expected to do.

I worked at the golf course for a year and found the job extremely varied and interesting. However I wanted to gain more knowledge and after making enquiries at my local college, Oatridge, I elected to go on a full time course for a National Certificate in Golf Course and Sportsground Maintenance and Management. While at Oatridge I was introduced to the Institute of Groundsmanship through Beverly Stevens, one of my lecturers. She encouraged me to attend the local branch meetings, which is where I first met Bill Elwood, the former Head Groundsman at Murrayfield, now the Facilities Manager. It was through attending meetings and showing an interest that I was given a chance to continue my career at Murrayfield after completing my studies at Oatridge.

Working at Murrayfield I was able to compare the practices that were carried out previously at Ratho and I found them to be very similar. Demands are very similar, although the games of rugby and golf are obviously very different; the principles of management, maintenance and presentation will be equally high on both
the Head Greenkeeper’s and the Head Groundsman’s agenda. Both managers will be striving to ensure that their turf is at its absolute best at certain times of the year. Perhaps for greenkeepers it revolves around the club championship or the open week and for Groundsmen it may be towards an important cup match. More often than not a rugby Groundsman’s life is spent trying to produce a quality pitch in the most adverse weather conditions, due to the season in which the sport is played. At the end of the season there follows an early summer renovation period, which is not without its difficulties.

The Greenkeepers event calendar, however, mainly majors around a busy summer with renovations in the spring and autumn. The principles and practice of aeration and feeding continue for both sets of managers throughout the year, although as you would expect differences have to be allowed for, such as sward composition, pH levels, soil type and so forth.

After three years at Murrayfield I thought I needed to broaden my knowledge and gain experience in varying aspects of the industry. I have been very fortunate to work not only in maintenance of golf courses, but also in golf course construction and had the opportunity to work with some very large equipment. I was involved with the development of Elmwood College golf course and the initial maintenance of Strathmore Golf Centre. I then returned to maintenance with an appointment at King James VI Golf Course.

My time at Stewarts of Dalkeith was beneficial in realising the huge range of materials that are available for our industry. It also emphasised the value of communication and record keeping which is vitally important in my present role.

Murrayfield consists of 54 acres of land near the centre of Edinburgh where the climate is fairly dry compared with other parts of the country. I returned to the stadium in November last year and am enjoying the fresh set of challenges and problem solving. Since the introduction of professional contracts there has been a huge increase in the use of the training facilities, which in turn places increased demands on the staff. We regularly work many hours above a normal working week to meet the demands placed upon the ground staff.

The work schedule includes the maintenance of five rugby pitches plus an international pitch within the stadium. The outside pitches were rebuilt in 1995 using the Netlon reinforced turf system to facilitate car parking on match days or when concerts are held at the stadium. Three members of staff, including myself, maintain the pitches. The maintenance staff for the whole complex totals 14, made up of plumbers, joiners and painters.

The international pitch sits within a 67,500 all-seater stadium, which creates its own problems such as shade, airflow and humidity. As well as Rugby Union, the pitch is to be used for the Rugby League finals, American Football and concerts. Indeed, between March and May, out of nine weekends, only two see the International pitch not being used. The variation of events requires a great deal of line marking and blanking out depending upon the fixture. Posts require erecting and removing due to the alternating games from week-to-week between League, Union and American Football. The accuracy required for marking the American football pitch will be very demanding but the final presentation of the marked out pitch, complete with logos, will make it very worthwhile.

The available machinery and equipment has recently been given a terrific boost since the recent agreement between the Scottish Rugby Union and Textron. This means that we have the latest range of equipment with modern technology and engineering at our fingertips. We have access to a full range of Textron equipment whenever we require it. The machinery we keep at Murrayfield includes a 45 BHP Iseki tractor; two 25 BHP Iseki tractors, one with a front loader. Other equipment includes a Jacobsen LF-3810; a Jacobsen Triking a Cushman Turf-Truckster with a range of attachments; a number of EZ-GO’s; two new Ransomes Mastiffs and a range of aeration equipment. We also have a 35 BHP Renault tractor complete with turf tyres and loading bucket. We complete all our own pesticide control, using a Hardi sprayer for fungicides, insecticides and herbicides.

The responsibility of the international pitch is a big challenge but I am very fortunate in having Bill Elwood, the Facilities Manager, with his vast knowledge of groundsmanship and especially Murrayfield, should I have any queries. In the run up to an international match we start preparing the pitch two weeks before by single rolling every day, using the Ransomes Masstiff mower. This operation produces a resilient surface suitable for the game of rugby. The week before the match the pitch is double rolled, as usual, and then all the cross markings, solid and broken lines are marked in. On the morning of the match a single roll is given across the pitch. The two touchlines and the five and fifteen broken lines are marked in. All lines are put in using a string line to ensure accuracy. The broken lines are marked in with a board and strings. The pitch is then flagged and the posts padded and sand buckets placed out for the kickers and that completes the preparation.

Throughout the match we stay on hand to deal with any emergency that may occur. After a match there will be repairs to the pitch. This is completed immediately the match has finished so that the divots repair easier and heal quicker, which is crucial with a busy
fixture list. On the day after the match we will use the soil reliever onto the pitch set to a depth of 150 mm (6 inches) to ensure we do not reach the under soil heating pipes. This will aid the recovery by removing the compaction caused by the rolling.

I am very fortunate to be able to drive into work and feel a great sense of pride, to be involved with the preparation at an international stadium and view the pitch in all its glory. The continuous increase in fixtures and demands upon the pitch ensures that we cannot sit back. The pressures are always there and we have the challenge to provide the best possible pitch for every occasion. My job as Head Groundsman to the Scottish Rugby Union, like any groundsman or greenkeeper, is extremely rewarding, though not without its pressures and difficulties.

It has taken me a couple of days to put this article together, the Scottish team are back after a defeat in Italy - I've heard it was the fault of the ball! I'm sure I have a great deal more to learn about rugby groundsmanship... and rugby players.

Below: Training plays an important role with the SRU/Textron agreement