

# Bulletin Tebbutt Associates

## FROM BUILDING SITE TO PRIME PLAYING AREA

**It is not often a major sports pitch is used as a building site, this was what Brian Walker the Cardiff Rugby Club groundsman was faced with in early 2000 with the construction of the Millennium Stadium next door to his Cardiff Arms Park pitch.**

Brian did his apprenticeship at Cardiff Football Club and moved to The Arms Park in 1988 as assistant to the then Head Groundsman. He succeeded to the position in 1990.

The pitch which he has looked after for the last 13 years, has been Cardiff Rugby's home for over 150 years and this was the area used to construct the roof for the millennium Stadium.



For 12 weeks it was home to two 70ton cranes, the largest in Europe and 10,000 tons of stone and numerous other building materials.

At the end of this process in early 2000 a pitch had to be recreated upon which Cardiff Rugby could perform during the approaching season. Firstly all the drainage line had been broken and had to be re laid, by using two main drains and laterals at 5 metre intervals. They then needed to level the surface and re turf the whole area.

So 9000 sq m of Inturf Big Roll turf was laid inside a week of the drainage being finished. Unfortunately the turf had not been down five weeks before a marque was set up as part of the opening ceremony for the Millennium Stadium.

The 2000/2001 season was not a happy experience as the ground was

badly compacted and water lay on the surface for long periods.

In May 2001 The pitch was sand slit and a sprinkler system was installed. The surface water got away and the playing surface improved, but they were still plagued with poor stability. The ground cut up badly after each game. Brian started to look at the various alternatives to improve the surface stability, drainage and reduce the grass wear, which had been very evident during the 2001/2002 season. The shaded area in front of the main stand was virtually bare by the last game in 2002.

Having seen the Crown III used successfully at Cardiff Football Club, Brian decided that this was the most suitable material for him to overcome the problems of surface compaction, poor stability and wear. Crown III is a rubber particle 1-3mm in size, specially graded to eliminate foreign material.



A plan was drawn up to lay 5 kilos of Crown III over the whole surface after vertidrainning the 9000sq metre area with a Wieden Mann using 20 mm tines to a depth of 8-9inches at 5inch centres. In May 2002 the work started with 40 tons of Crown III arriving in 1ton bulk bags on pallets.

The Crown III was laid with a Tractor pulled drop spread in one pass at a rate of 5 kilos per sq. m. and the rubber particles were then drag matted into the tine holes. This took three passes to fill 95% of the holes.

The area was then overseeded with Montegg MN60 dwarf rye

The seed germinated well and the pitch was used for pre-season training at the end of July 2002. The first practices matches took place in August. As the season progressed Brian says "It quickly became evident that the surface water disappeared very quickly. After an inch of rain over night it would be dry as I went on to the pitch at 8 O'clock in the morning." The Crown III was keeping the drainage holes open.

By mid winter they were noting that there was minimal cut up and that the stability had improved dramatically from the previous season. Brian says "The root density appeared to have increased by 25/30% from last year due to the improved aeration obtained from the rubber particles, this has meant a lot less work for us in repairs carried out after the game."



**By March/April the grass has usually gone from areas of the pitch particularly in front of the stand. In 2003 there was only one small wear area on the whole pitch, in the centre drop out zone. The run out, which was treated with double dose of Crown III, still had a full head of grass.**

At the end of the 2003 season a light sandy top dressing of 80 tons was applied, into verti drain holes, no other treatment was necessary to bring the pitch back to prime condition.

At February 2004 well into the second season with Crown III Brian Walker

says "The pitch is 70% better than in the 2001/2 better drainage, better wear and more stability, not one game has been delayed or cancelled in nearly two seasons"

The improvement in wear is graphically illustrate by an accident which destroyed some of the turf under the marquee, which was on the pitch in June 2003. This area had to be returfed and was not treated with Crown III, this area has subsequently worn badly. The pitch in front of the dugout that was bare by February 2001 now has a good head of grass.

(The photographs show the pitch at the end of the 2002/3 season.)

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