



## Arsenal Training Ground – A Profile

“A tool like the Rain Bird Controller is as valuable to me as the players are to the Club!”

Steve Braddock, Head Groundsman  
Arsenal Training Grounds



**RAIN  BIRD**®

## Using new technology to achieve the ideal irrigation



Steve Braddock, Arsenal's Head Groundsman

Arsenal's training grounds comprise ten full scale football pitches, each of which has to provide the ideal balance of grass cover and softness so that some of the highest value players in the world can practice hard without risk of injury.

Steve Braddock (inset, above) is the Head Groundsman who, with his team of 11 other ground staff, has the ultimate responsibility of delivering and keeping those pitches in top condition. The typical overnight watering requirement during the main playing season is 5mm, and the pitch surface should feel firm to walk on but soft to the touch or foot. Each pitch is used extensively for two weeks, then rested and nurtured for a month. The First team

has three pitches dedicated to their sole use; the Reserves and Youths teams have the other six pitches, again, using each one for two weeks and then a month to recover to peak condition. The other pitch is used extensively for Academy and Reserves matches, as well as 'behind closed doors' matches.

When you add in the fact that each pitch is completely renovated by removing all the existing foliage every year between March and July, so that every pitch's top surface is effectively renewed – and with the first ready to be used by July – you start to realise that Steve's responsibilities and challenges go a long way beyond those of most groundsman.

### Rain Bird's Controller – achieving a difficult balance

The watering requirement for the fourteen hectare playing area is upwards of a million litres every night in summer, but the mains water supply is limited. The training ground has a holding tank, but this is of insufficient capacity to meet the normal requirements of the system, so Steve has a particularly complex balancing act to achieve. That's where the Rain Bird technology really plays its part.

Controlling the amount of water that each of the 200 sprinkler heads delivers, the length of time each is operating, and which ones are working together in what sort of pattern, can only be done by using Rain Bird's Site Control software. Steve also has the Freedom radio remote control system, which gets used extensively to relay irrigation commands from the sharp end of the irrigation system to the office-based PC control system.

Each pitch has a similar sprinkler layout comprising of Rain Bird 95DR's and Eagle 900's. Each of the Eagle 900's are installed with artificial covers to which Steve has added extra sand, soil and seed to ensure as complete a grass cover as possible, so that players are training on 100% natural grass. The 200 sprinklers are laid out along the following lines:

- six in the playing surfaces
- three down each touch line (ie. six in total)
- four at the corners
- and two along the goal lines,

so there are all sorts of different permutations and irrigation programmes that Steve has been able to develop and set up, using his Rain Bird Control system. He's written 53 so far, including a special one for the time when the England squad come to train at Arsenal's ground.

### Lots of different variables to take into account

The variables are largely to do with the condition of the pitch, the time of year, the temperature and weather, and although nowhere near sufficient for the amount that Steve needs, the available rainfall. Steve needs to control the amount, so that when required, a pitch that's growing in can get a light spray, whereas one in full growth can get a much heavier watering, especially in the summer.

Wind is another factor that has to be allowed for; the training ground is relatively open and unprotected by a stadium, so even a 10mph wind can make a huge difference to the area that actually gets watered, compared to the area on the windward side of a sprinkler head that gets far less. The average wind speed across the site is 20 mph.







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