**Taking the Guesswork out of Tees Irrigation.**

Golf Course Superintendents will often spend significant time & trouble ensuring their *greens* are in perfect condition. Uniformity and coverage is carefully evaluated but on most golf courses I have visited, few courses have tees irrigation sorted to the same degree.

Tees on golf courses can be all shapes and sizes, even on the same solenoid station. When you’ve almost always got a different sized ladies, men’s and championship tee on the same hole, it’s no wonder then that people get a bit dumbfounded when it comes to irrigating them. But maintaining the best turf cover on your tees can only be achieved if your tees irrigation system is up to the task.

So, let’s talk about proper Tees irrigation. To start with, we should only use a greens sprinkler to irrigate a tee block if the block is greater than 15 metres wide. For all your narrow tee blocks we need a sprinkler that is *designed* for the throw it needs to make. Luckily all the golf irrigation manufacturers have pop-up sprinklers available that will irrigate much smaller areas.

Here are some examples. If your tee block is 6 metres wide (regardless of its length) then we can install a pop-up sprinkler designed to throw 6 metres radius. This is likely to be a ¾” BSP sprinkler and by choosing the correct nozzle you’ll be able to get roughly the right throw naturally. By the way, when you’re looking at the nozzle chart, most charts these days also have a column that shows you the expected precipitation rate (i.e. mm per hour). If another tee is 10 metres wide you can probably use the same model sprinkler (the Rainbird 5004 is my small tee sprinkler of choice) with a bigger nozzle in it. You just need to consult your sprinkler’s nozzle chart (which can be found online). This will increase the flow rate, but then we’re covering a bigger surface area and you will probably find that the precipitation rate is roughly the same for both areas. This means that although you have different nozzles throwing different distances and covering different sized areas, your application rates are much the same. This is called “*matched precipitation*”.

Incidentally smaller sprinklers have lower flow rates. So even if you have twice as many sprinklers irrigating the tee area, you’ll often be applying less water, and with less wastage. More importantly you will be applying the correct amount of water to your tee blocks, regardless of how big or small each tee is.

Preferably the sprinklers should be installed around the perimeter of any given area. If you have a square tee block 8 metres x 8 metres, then I’d plan to install a sprinkler in each of the 4 corners, and each sprinkler would throw 8 metres radius (choosing the same sprinkler as above but with a nozzle designed for 8 metres throw). If the tee block is 8 metres wide x 24 metres long I’d have one on each corner and then 2 spaced equally down each side (each of them therefore 8 metres apart) adding up to 8 sprinklers total (4 each side of the tee). This method of choosing the radius of throw to be the same as the tee’s width isn’t new; when the sprinklers are spaced the same distance apart as their expected throw it’s called “*head-to-head coverage*” and this method will generally maximise your uniformity. It’s important to have sprinklers on both sides of the tee if possible, again to maximize uniformity. This might seem like an overkill but it will provide good coverage which will allow you to grow a uniform surface of turf. If they are just down one side, then the side with the sprinklers will receive a load more water than the other side.

In a perfect world you would have all your different tee blocks (championship, men’s, ladies) on separate solenoid valves, but generally this just isn’t the case. When different blocks have significantly different characteristics, such as shading from trees, drainage and prevailing winds, you might want to consider changing your pipework to divide the blocks into 2 or more solenoid stations. This can usually be achieved relatively easily if you have a decoder control system. If you don’t currently have your tees automated, then this is something you could consider as you incorporate your tees into your automatic system in the future. Divide your tees into blocks with different environmental or soil factors.

So for tees that are less than 15 metres wide there are smaller pop-up sprinklers (often with ¾” inlets) that are designed for these smaller areas. They will save you water and offer a greater level of accuracy than a bigger greens-irrigation style pop-up sprinkler. Once the block is greater than around 15 metres wide you can use a 1” inlet pop-up sprinkler (or bigger), like your greens sprinklers, and just choose the right nozzle for the required throw. All this information should be available on the internet if you look up your sprinkler model’s specifications.

The same incidentally applies if you have other areas of your course you need irrigating, such as pathways you want to wet down (dust suppression is big business these days), and gardens and bunkers that you want to irrigate. There are even pop-up sprinklers with ½” bases that will accurately throw the water 4-6 metres radius, saving even more water and maximizing your accuracy of coverage. For the edges of your bunkers you can even use dripline, which can be buried under the surface of the turf around the perimeter of the bunker. It will supply that 6” of turf on the edges of you bunkers with some water, preventing burn-off and dieback, while nobody needs to even know it’s there. This can be installed onto its own solenoid valve (you must include a pressure regulator) and added into your irrigation system too. Talk to your local Rigby Taylor representative or your irrigation contractor. Otherwise you’re welcome to contact me.