

# **Happier Turf through Aeration**

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*As humans do, grass needs air to perform well. West coast sports turf takes a tremendous beating from being played on when weather conditions are wet and cold. Most play in the west occurs when conditions are less than optimal. Cultural operations such as mowing, fertilizing etc. also contribute to soil compaction. As well, thin soils have a tendency to compact and develop a layer of thatch. Compacted soils are the greatest problem faced by local sports turf managers.*

*Compacted soils do not allow the turf roots to make up water, air and nutrients. This causes poor turf performance due to ineffective fertilizer uptake and plant water management.*

*How can we encourage a more open turf, allowing root oxygen and nutrient exchange to occur? The process of aeration is simply to promote the conditions that allow air to get to the roots. Aeration is best done in the spring and early fall before the rains start and while the grass is still actively growing. Turf damage is less and recovery is faster. Aeration should not be done when the weather is extremely hot as the grass plant is less active and recovery is slower.*

*Several types of aeration processes occur in BC. These include solid tine spiking, slicing, deep tine coring or spiking, or hollow tining or deep vertical mowing. The common core removal depth is 3-4 inches; however, other deep tine equipment can penetrate down 10-18 inches. Machines such as a the Verti-drain and the Soil Reliever shatter the soil profile down to 12-18 inches. This causes minimal disruption on the soil surface, however, this process should not take the place of core aeration and slicing. By aerating, organic matter and clippings will decompose easier, supplying nutrients, reducing the possibility of a thatch build up and allowing nutrients to penetrate the soil profile encouraging deep roots and healthy turf.*

*When aerating, overseeding and topdressing are timely cultural practices to encourage. Top dressing materials could include sand, organic products such as bio soils, fertilizer products or a combination of all three. Care should be take that amendments encourage an open soil, thereby not reducing the impact of the aeration process.*

*Dressers basically come in different application models. These include the dual spinner machine which can throw the material 12-15 feet on either side of the top dresser. This machine covers a lot of ground, however, overseeding depth is not exact. Also wet material is more difficult to handle than dry material with this machine. The drop brush type top dresser slows for a very accurate distribution of both wet and dry material. Unfortunately, this method is slower and requires more field crossings.*

*Aeration is extremely important for BC turf managers. Aeration provides improved water efficiency, better fertilizer uptake, organic matter decomposition and a better draining soil. Germination of reseeded and overseeded turf is therefore greatly enhanced producing healthier root systems and happy athletes.*