

COMPARISON OF DIFFERENT TURFGRASS AERATION METHODS

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Cultivation Procedure	Comments Tine diameter (inches)	Depth of Penetration (inches)	Deep Cultivation Method (>6 in. deep)	Deep Injection Possible
1. Coring with hollow tine, spoon, screw devices				
a. Tractor-drawn units with spoons or tines that enter the soil at an angle. Some units are motorized.	Several types—interchangeable spoons, hollow tines, slicing blades. 1/2-3/4	3-6		
b. Drum-type	Several types Hollow tine	2-3		
c. Verti-Drain, Soil Reliever	Hollow tine	10-12	Yes	
d. Vertically operated tines	Most common form of cultivation. Many types, hollow tine. 3/8-7/8	3-5		
e. Deep-Drill Aerofier —Floyd McKay —Green Care	Screw device 1/2-3/4 3/4-2	5-10 16	Yes Yes	Yes—Granulars
2. Coring by solid tine devices				
a. Verti-Drain, Soil Reliever	1/2-1 dia.	12-16	Yes	
b. Shatter-core vertically operated tines.	1/2-3/4 dia.	3-5		
c. Units where tines enter the soil with a rotary pattern (Aera-Vator)	1/2 dia.	3 1/4		
d. Small diameter solid tine often as a quad tine	1/4 dia.	2-3		
3. Slicing —Solid tines or blades, not power driven. Many types.				
a. Straight-line tines	Most common	3-7	Some Units	
b. Straight-line blades (Verti-Slicer, Verti-Groover)	Thin width blades	2-6	Yes	Yes—Granulars
c. Offset tines (Aerway Slicer)	Larger width blades, 1/4-1/2	6-8	Yes	
4. Spiking —Blades are not power driven (i.e. do not cut through the soil but penetrate by machine weight)				
	Small spikes or knife-like blades. Units may be pull type or motorized drive (Spikeaire).	1/4-2		
5. Forking				
	The "original" spot treatment cultivation method	6	Yes	