

AXIS Water Savings Research Results

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Estimated, 20-year irrigation savings from the addition of 10% AXIS to a pure sand or sand/peat root zone. Savings are based on the reduction of irrigation depth as compared with the un-amended system. Also shown are the percent reductions in the number of irrigation events from addition of 10% AXIS to pure sand or a sand/peat root zone.

	Sand w/ 10% AXIS		Sand/Peat w/ 10% AXIS	
	Irrigation savings	Event reduction	Irrigation savings	Event reduction
	(%)	(%)	(%)	(%)
50% Depletion				
Phoenix, AZ	6.2	30.4	4.2	23.9
Sacramento, CA	6.4	34.0	3.8	23.5
Boulder, CO	9.2	32.7	6.4	25.6
Houston, TX	13.4	35.8	16.0	33.3
Miami, FL	16.5	38.0	14.2	31.8
Olympia, WA	8.8	32.3	4.4	24.0
Columbus, OH	24.2	43.7	17.1	34.1

Additional consideration is given to irrigation system inefficiency that includes factors such as evaporative losses, distribution non-uniformity, and less than rigorous management.

	Overall Irrigation Savings			
	Sand w/ 10% AXIS		Sand/Peat w/ 10% AXIS	
	20% System Loss	40% System Loss	20% System Loss	40% System Loss
	(%)	(%)	(%)	(%)
50% Depletion				
Phoenix, AZ	7.4	8.7	5.0	5.9
Sacramento, CA	7.7	9.0	4.6	5.3
Boulder, CO	11.0	12.9	7.7	9.0
Houston, TX	16.1	18.8	19.2	22.4
Miami, FL	19.8	23.1	17.0	19.9
Columbus, OH	29.0	33.9	20.5	23.9

Available Water Capacity

12" USGA Green has 23 mm of AWC, 10% AXIS provides 31 mm = 34% more AWC

20 Year ET Rates	Sacramento	3.5 mm per day = 2.28 more days of water
	Boulder	4.6 mm per day = 1.73 more days of water
	Phoenix	5.2 mm per day = 1.53 more days of water
	Las Vegas	5.1 mm per day = 1.56 more days of water