

Natural Turf Versus Synthetic Turf Costings Case Study

Typical water consumption per year for a natural lawn in Adelaide over 1 year based on 50m2 area.

Spring months 22mm of irrigation to the area x 1.25 times per week = 17,875 litres
Summer months 22mm of irrigation to the area x 2 times per week = 28,600 litres
Autumn months 22mm of irrigation to the area x 1.5 times per week = 21,450 litres
Winter months – negligible

Approx yearly consumption pending weather events = 68,000 litres

Average cost per household per kilolitre is \$3.32 k/l x 68 k/l = \$225.00 per year (\$4.50 per m2 per year)

Information & data sources:

S.A. Water

Turf Australia

Environmental Protection Agency (EPA)

Typical costing for supply and installation of synthetic turf and natural turf based on a 50m2 area.

Synthetic Turf

Excavation, dumping of waste spoil, supply of base material and base preparation.	\$1500.00
Supply of synthetic turf product and installation materials: seaming tape, adhesive, spikes, sand:	\$2500.00
Labour charges for installation of synthetic turf:	\$ 725.00
Total cost:	\$4725.00

Natural Turf

Excavation, dumping of waste spoil, supply of loam base material and base preparation.	\$1650.00
Supply of natural turf:	\$ 450.00
Labour charges for installation of natural turf:	\$ 385.00
Manually operated pop up irrigation system:	\$ 330.00
Total cost:	\$2815.00

Based on Ozgreen Solutions pricing schedule.

Maintenance

Natural turf per annum **for the home owner to maintain and care** for the natural lawn area themselves.
This is approximate yearly cost and allowing each year 3% inflation.

Watering:	\$225.00
Fertiliser, weed & pest control:	\$ 70.00
Coring & scarifying:	\$ 55.00
Mower, trimmer, blower fuel & maintenance:	\$ 55.00

Average maintenance cost per annum by homeowner: \$405.00

*Though synthetic turf is not completely maintenance free, costs are virtually negligible as it only requires basically raking & sweeping which incurs no monetary cost. To be fair in this comparison we have allowed \$20 plus inflation for fuel cost for a hand held blower and the very occasional use (if at all) of weed treatment to the edges of the turf.

Synthetic Turf			Natural Turf	
Year	Maintenance \$	Cumulative total incl original establishment	Maintenance \$	Cumulative total incl original establishment
1	20.00	4745.00	405.00	3220.00
2	21.00	4766.00	417.00	3637.00
3	22.00	4788.00	429.00	4066.00
4	23.00	4811.00	442.00	4508.00
5	24.00	4835.00	455.00	4963.00
6	25.00	4860.00	468.00	5431.00
7	26.00	4886.00	482.00	5913.00
8	27.00	4913.00	497.00	6410.00
9	28.00	4941.00	512.00	6922.00
10	29.00	4970.00	527.00	7449.00
11	30.00	5000.00	543.00	7992.00
12	31.00	5031.00	559.00	8551.00
13	32.00	5063.00	576.00	9127.00
14	33.00	5096.00	593.00	9720.00
15	34.00	5130.00	611.00	10331.00

As demonstrated in the above table we can see the initial cost with maintenance costs are comparative between the 4th & 5th year.

If you take the avenue of having either synthetic or natural turf professionally cared for we can see this has a dramatic alteration to the costs and a difference of what point cost incurred becomes comparative.

Maintenance of synthetic turf professionally:

Synthetic turf power broomed every 6 months @ \$67.00 per visit plus the original \$20.00 fuel / weed control cost.

Total cost: **\$154.00**

Maintenance of natural turf professionally:

Lawn mowing and edging @ 29 visits per year at a cost of \$44.00 per visit: \$1276.00

Plus the original costs of water, fertilising, fuel etc. \$ 405.00

Total cost: **\$1681.00**

Year	<i>Synthetic Turf</i>		<i>Natural Turf</i>	
	Maintenance \$	Cumulative total incl original establishment	Maintenance \$	Cumulative total incl original establishment
1	154.00	4879.00	1681.00	*4496.00
2	159.00	5038.00	1731.00	6227.00
3	163.00	5201.00	1783.00	8010.00
4	168.00	5369.00	1837.00	9847.00
5	173.00	5542.00	1892.00	11739.00
6	178.00	5720.00	1948.00	13687.00
7	184.00	5904.00	2007.00	15694.00
8	189.00	6093.00	2068.00	17762.00
9	195.00	6288.00	2130.00	19892.00
10	200.00	6488.00	2193.00	22085.00
11	207.00	6695.00	2259.00	24344.00
12	213.00	6908.00	2327.00	26671.00
13	220.00	7128.00	2396.00	29067.00
14	226.00	7354.00	2468.00	31535.00
15	233.00	7587.00	2543.00	34078.00

As we can see the results are quite staggering and we ourselves are completely surprised at the real cost of a natural lawn averaging **\$2272.00 per year** over a 15 year period with a huge saving of almost **\$27,000.00** over 15 years and even over a relative short period of time of 6 years being \$8000.00

Water Saving

Based on a 50m2 area = approximately 60,000 litres annually x this by a conservative amount of homes in Australia that water their lawn lets say 4 million (the current number of homes in Australia is 9.12 million) we are looking at 240 billion litres of water or near 100,000 Olympic size swimming pools.