



Turf is the key to keeping our cities cool

What is an urban heat island?

Urban heat islands form in cities where heat accumulates, due in part to the loss of urban greening and replacement with hard, constructed surfaces that absorb and retain heat. Cities around Australia have developed heat islands as they have changed from natural to built landscapes, replacing cooler green open spaces and trees with constructed materials that retain heat.

Why is it a problem?

Urban heat impacts the health and well being of people living in cities and towns and has negative consequences for the economy. Heat has proven effects on mortality rates of children and the elderly, it is associated with higher costs of cooling and higher greenhouse emissions. It also affects animals, both our furry-friended pets, and those within our delicate natural ecosystems.

What is causing it?

Constructed materials such as bitumen roads, dark coloured roofs, rubber soft fall and synthetic turf are associated with higher surface temperatures, which cause urban heat islands.

In contrast, the drivers of urban cooling and heating are becoming increasingly well understood. Green infrastructure or green cover includes a wide range of land surface types, including turf (grass), tree canopy, shrub canopy, green walls and green roofs. It is typically associated with cooler land surface areas, due to the cooling effect of evapotranspiration from the surface of plants.

Can turf really make all that much difference?

A Hort Innovation strategic, levy-funded project has been undertaken to determine how important turf is as a method to negate the urban heat island. Conducted by Edge Environment, the research found that in the Australian cities surveyed, living turf was actively cooling the areas around it. In New South Wales, Victoria and South Australia, the surface temperature of irrigated natural turf measured 4.9°C cooler than the baseline average surface temperature. In the same analysis, long pile synthetic turf was one of the hottest surfaces in the landscape measuring nearly 11°C hotter than average.





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The urban sprawl of our cities has resulted in the loss of greenspace. **Extreme heat impacts the community, environment and economy.**



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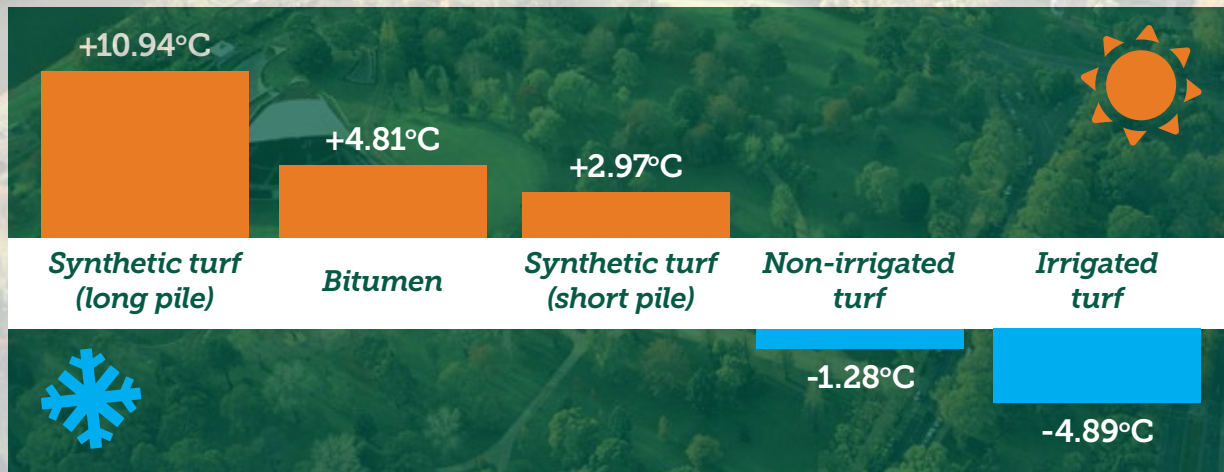
Unchecked, cities will be spending **up to 10% of GDP** to mitigate urban heat islands.



Australians can expect to see anywhere from a **50% - 72% increase in cooling utility costs** resulting from urban heat islands.



The warming and cooling influence of different landscape surfaces...



Irrigated green space cools our cities and living turf is one of the coolest land surface types in our cities.

But, more green cover is being replaced with impervious surfaces.

The decisions we make today about how our cities are constructed influences how cool they will be now and in the future.

Contact Turf Australia for more information.
www.turfaustralia.com.au

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