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Artificial turf is an alternative to concrete not grass.

By Todd Layt

When you investigate the properties, benefits and functionality of artificial turf compared to real grass, you soon realise it can not replace real lawn, but it can be a good alternative to concrete or other hard surfaces. Artificial grass is simply a softer alternative to concrete, allowing a surface to be treated harshly, yet still allow people to play some sports that real grass has trouble coping with. Real grass can cope with a lot, but sometimes it is not the answer, like on Tennis Courts. For most other uses, using artificial grass instead of real turf is like having beer with Zero alcohol, trying to eat plastic fruit rather than real fruit, or using plastic plants in the garden. Apart from tangible benefits of true grass over the fake stuff, there are the psychological realities. We all know deep down fake turf is fake turf, and it just does not give people the real lawn feel good vibes.

Research has often linked health benefits with natural living parks, consisting of turf and plants. Patients who overlook parks in hospitals recover better, and residents of high rise housing with access to green open spaces are healthier. They have better mental health, immunity to disease, and work more productively. Even a child's behaviour is improved by natural turf and plants. When people live and work next to nature, they are more relaxed, and are less susceptible to high blood pressure, stress and depression. The key word here is nature. Fake grass is quickly dismissed by the human mind as not real, and therefore could never be included in nature. Real turf is a wonderful part of nature. People find the feeling of grass between their toes, or the experience of lying on a soft lawn both relaxing and exhilarating. Real turf is the preferred choice of sportsmen, providing a safer and healthier surface to play sport.

Environmental science can also be used to show why natural turf has serious benefits, and that fake turf is a poor alternative. On a hot day dry artificial turf can be up to 50% hotter than real turf. In one study the temperature on artificial turf reached 78 degrees Celsius, whilst the natural turf was almost 40 degrees cooler, and this was on a day that was 37 degrees Celsius. In another study the temperature of artificial turf was on one occasion recorded at 92 degrees Celsius. Other studies have shown natural turf to cool the surrounds of buildings dramatically. An average front house lawn has the cooling effect of 8 ½ horse power worth of air conditioning. Environmentally, real lawns clean run off water, remove pollutants and heavy metals, and channel the water to recharge our aquifers. Turf also cleans the air. 15 square metres of turf produces enough oxygen for one person. On the other hand, artificial turf is often made from recycled rubber, which frequently contains aluminium, cadmium, chromium, copper, iron, magnesium, manganese, molybdenum, selenium, sulphur and zinc, in addition to lead, that may have been absorbed into the rubber while in use as a car tire. If it is not recycled

On artificial turf sports fields, blood, sweat and tissue from someone falling, or dog and bird droppings need to be cleaned up with disinfectant, whilst on real turf, the turf and the beneficial bacteria all around it take care of the problem. In 2003, the Centers for Disease Control (CDC) in the USA conducted a study and found that artificial turf was the cause of several cases of Methicillin-resistant Staphylococcus aureus (MRSA) in athletes. MRSA is an antibiotic-resistant bacteria that spreads through contact with people and objects.

Symptoms of an infection can begin as seemingly innocuous bumps or nicks in the skin, but can quickly spread to the heart, lungs or central nervous system, even capable of causing death. Researchers found that players who sustained turf burns from artificial turf fields were seven times more likely to contract an MRSA infection since these uncovered wounds allowed the bacteria to pass easily among players in close contact. Leaves and sticks need cleaning, as does bird and animal droppings, where as on real turf the mowing process takes care of this. Cleaning fake turf is not an easy process, and can involve many man hours. Mowing also costs man hours, but the other benefits of turf make up for it. Some new turf varieties like Zoysia types require a third the mowing, which makes their monthly maintenance closer to artificial turf. Artificial turf can suffer from weed invasion just like real turf, as dust and rain allow weed seeds to germinate. At least when real turf is sprayed with Herbicides, the biological processes of turf and soil remove the chemical, while artificial turf allows it to linger. Pests and diseases may not hurt artificial turf, but a good healthy lawn, and the right type of lawn for the region, presents far less of these problems.

Real turf acts as a filter for water to be channelled into aquifers, cleaned by filtration on the way. Without these large grassed areas, our ground water supplies and nearby forests that rely on infiltration of nearby turf areas will suffer. Sure, fake turf may need less water than turf to look good, but fake turf still needs water for cooling and for cleaning. A good well chosen warm season turf, when trained correctly uses about the same water as a native garden. This was confirmed by a study at the University of Western Sydney. Sports fields will need more water due to constant wear, but water can be minimised by best practices.

Environmentally real grass is a wonderful natural product, which far outshines man made fake grass in the green stakes. Sure there are some places artificial turf is needed, particularly replacing hard surfaces, but the recent trend to use it in areas such as homes, parks and recently like St Kilda Council on roadsides, supported by better environmental credentials, is based on bad information. One hectare of natural turf can strip 2 to 3 tonne of carbon per hectare per year from the atmosphere. The manufacturing of fake grass produces carbon, but takes

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then it is often made from petroleum products, which the refining of causes huge amounts of pollution. Its life span is limited, so it will need replacing in about a decade. As the artificial fields get older and heat up, tiny fibres dislodge, and can be inhaled by people playing sport, or even lying on the surface. Some, including a USA doctor are worried this could lead to problems similar to Asbestosis.

none from the atmosphere. Keep the dream alive, keep our industry alive, and sing the praises of real lawn.



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