

Artificial Grass Report

Consumer Resource: www.capabilitycharlotte.com /artificial-grass

Dear reader,

Thank you for looking at this report! You might be considering artificial grass for your outdoor area, or curious on how you can support our #TimeForTurf campaign.

Either way, we're so excited you're here. Artificial grass is getting extremely popular among home owners. And we can completely understand why!

You might want the easy life that it's said to provide, or are looking for your garden to be another room.

Unfortunately, we're all being sold lies by artificial grass manufacturers. We will explore the lies in this report, but most importantly provide you with some SOLUTIONS.

All too often, awareness campaigns are just focused purely on the environment or the negative aspects of artificial lawns.

Although we do explore these important points, our aim is to provide you with a resource with solutions and guidance.

If you've been handed this report by your chosen garden designer or landscaper, feel free to ask them questions and ask for further support.

Here are some examples of questions posed to me as a garden designer, and alternatives I suggest.

Enjoy!

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Q: Aren't artificial lawns low maintenance?

Unfortunately not! It is basically like having a carpet in your garden.

You will need to sweep it regularly to prevent a build-up of organic matter. I have seen some people actually vacuuming their lawn! This little beauty will set you back £259 [1].



Below is a screenshot from an artificial grass manufacturer where they literally tell you to apply weed killer to your artificial lawn.

How do you maintain artificial grass?

How to clean artificial grass

- 1. Regularly remove leaves and debris using a leaf blower, stiff brush or plastic rake.
- 2. Trim hedges and trees often to limit the amount of leaves falling onto the lawn.
- Apply weed killer twice a year to the whole area to prevent weeds growing and to kill any stray ones.

In a natural lawn, the worms would drag organic matter such as leaves down and feed the soil. If left on the artificial grass, this organic matter will then become a perfect bed for surface weeds to germinate. Yes, you will need to weed your lawn!

If you have pets, their faeces will need to be scraped off and their urine makes fake lawns stink unless it is hosed off or disinfectant and artificial lawn scent is applied. The irony of this 'real grass', scented lawn disinfectant isn't lost on me.



Q: But I don't have time to mow my lawn, help?

That's fine! Many of us don't, with life having so many pulls on our time. Mowing is boring and I personally hate mowing. There are alternatives though.

For a 50m2 lawn, (the average size of most new build gardens these days) it will cost you $\pm 3,000$ to lay a good quality artificial lawn [2]. One option is to get a robotic mower. They are getting cheaper and cheaper and you can get a refurbished one for about ± 300 [3]



Or you could hire a gardener! They're not as expensive as you think. Did you know for the price of a fake lawn you could pay a gardener to mow your lawn AND tend your garden for 17 – 18 years???

Let's unpack that figure:

- A basic mowing gardener will charge about £20 per hour (about the same as a cleaner).
- The mowing season is between March and October which is 34 weeks.
- Your lawn will only need mowing once a fortnight so 17 visits.
- Most gardeners have a minimum of a one-hour visit, an average 50m2 lawn will take half an hour to mow and edge, leaving half an hour to tend and tidy the rest of your garden.
- 17 visits will cost you £340 per year, which makes about 9 years of gardening for £3,000.
- Not only that, you are providing regular work and you have someone to chat to once a fortnight, great for those who need the company.
- If you use a slow-growing grass seed mixes. join in with 'No Mow May', 'Let it Bloom June' and 'Thigh High July' you can reduce your mowing even more!

Q: I'm disabled and can't mow the lawn. How can I have a patch of green, and be independent?

That is completely understandable. If I can't persuade you to take on a gardener (remember that artificial lawns need regular maintenance too), then what about looking at laying wildflower turf Lindum Turf do all sorts of types that don't use plastic mesh.

How about a Tapestry Lawn? This is a new type of lawn developed at the University of Reading. It is made from mowing-tolerant flowering ground cover plants rather than grass.



They include yarrow (Achillea millefolium), creeping Jenny (Lysimachia nummularia) and white clover (Trifolium repens), and non-natives such as scarlet pirri-pirri (Acaena microphylla), brass buttons (Leptinella squalida) and shamrock pea (Parochetus communis).

They found these lawns attracted lots of wildlife, **absorbed rainfall twice as fast as a turf lawn and didn't need feeding.** It even benefits from occasional footfall or wheelchair wheels [4].

They will need mowing on a high cut, but only a few times a year.

Actually, lawns are weird.

Did you know domestic lawns as we know them are a relatively modern invention, only made possible by the introduction of harmful chemicals? Before that, lawns were only available to the very rich who could afford sheep to graze it or armies of labourers to scythe and weed it. They were a sign of wealth and status which probably explains our obsession with them now.

Mowers were only invented in 1830 and mass production only possible in the 1890s.

Clover and other 'weeds' were an accepted part of lawns until the 1950s, when chemical companies invented a broadleaf herbicide. They soon told us clover was unacceptable because they wanted to sell us their stuff of course [5].



Q: Isn't artificial grass great for kids?

No, it really isn't, as it gets incredibly hot in the summer as this picture proves. That is unless you spend a fortune on a specially treated lawn.

Even artificial lawn manufacturers admit this [6]. Some even suggest you hose it down – while also claiming that having to water real grass is bad! [7]



According to independent studies, injury risk rates on artificial sports pitches are 88% higher and the risk of serious concussion is 22% higher than playing on real grass. As anyone who has fallen over on artificial grass will tell you, the carpet burns and grazes they can give you are very painful! In hot temperatures those burns can be really serious, I'll save you the horror of an image but just look up 'Turf burn' to see what I mean.

But most of all why wouldn't you want your kid to sit on a lovely cool, real lawn teeming with wildflowers, bees and butterflies?

According to amateur naturalist, Richard Dowling: "If you raise kids with a plastic garden they'll grow up with no exposure, knowledge or appreciation for our natural world and given the pressures our planet faces, this is not a generation of kids that we can risk growing up not caring about these things. If it wasn't for my childhood garden, growing up playing in the mud and noticing the birds and butterflies I would not be protecting them now."

Q: But what about the mud with real grass?

I've worked on hundreds of gardens in my time, I have never known them to be muddy because we maintained the lawns correctly.

If your real lawn has good drainage, there is no reason for it to be muddy. If for whatever reason you are finding mud coming into your home, invest in a large, washable doormat. Also look at contracting a reputable landscape contractor to rectify the drainage issue.

Q: But I heard that artificial lawns are eco friendly?

Unfortunately, this is the biggest lie of all. Let's start with the unavoidable fact that most artificial grass is non-recyclable.

Most artificial grass is made up of a mixture of different plastics, sand and rubber, and while the plastic on its own can usually be recycled quite easily, it is very difficult to separate it from the non-recyclable bits. There are some grasses that claim to be recyclable, but to date there are no manufacturing plants in the UK that can do this. As with all the plastic we produce, it just gets shipped off to third world countries.



These are words from an actual artificial grass company. They then go on pretending that their grass can be recycled, in theory yes, in practice no:

"It is inevitable that large amounts of material destined for landfill will pile up every year, however, not only is this bad but the environment, but it can also be extremely expensive". [8]

As it ages, plastic grass (particularly the individual blades) will start to degrade and shed microplastics into the soil, and then via watercourses into the ocean, damaging both sea life and our own endocrine system. Microplastics in water have been shown to increase obesity and decrease fertility in humans. [9] Artificial grass is made of fossil fuels and is shipped from China, across the world, using fossil fuels. Artificial grass is made from:

- Polyethylene (Extracted from Petroleum or Natural gas),
- Polypropylene (Extracted from Natural gas or oil)
- Nylon (Also made from oil). Producing nylon creates nitrous oxide, a greenhouse gas that is 300 times more potent than carbon dioxide.

Manufacturing all these chemicals is a very energy and water-hungry process, which contributes to environmental degradation and global warming [10]. None of these chemicals are biodegradable.

Yes, they can be recycled but the recycling process is also very energy hungry. All in all, the impact of production, shipping and destruction of gardens far outweighs the saving of lawn mower fuel.

That is not to say that petrol mowers are not polluting, but electric and battery mowers are much more common, and their power sources are responsible for minimal emissions.

Also, if you reduce your frequency of mowing and do 'No Mow May' you'll only need to mow once every 2-3 weeks

Don't you think it odd that we are banning plastic bags and straws yet are happy to lay the equivalent of a few thousand plastic bags on our garden?

Q: Doesn't artificial grass avoid chemical use?

Real grass doesn't need any chemicals.

Of course, this is a decision you have to make. Do you want a perfect lawn with chemicals or would you like to help protect the environment? All I can say is no one will judge you if you say that your lawn is messy because it's wildlife friendly.

Unfortunately, plastic grass needs chemicals such as disinfectants to keep them clean.



The manufacture of the cleaners shown advise that they not be released into the environment as they are very harmful to aquatic life and causes skin and eye irritation, yet they also recommend that it be sprayed on your garden [11].

Q: But fake grass doesn't need watering?

Neither does real grass.

Some artificial grass companies may tell you that real lawns need a huge amount of water, (55 gallons per square metre many of them say [12]). This is a ridiculous figure, as watering your real lawn is almost as unnecessary as applying pesticides and herbicides to it.



That statistic is actually taken from a study of lawns by the Association of California Water Agencies, where lawns do need to be watered. But should we be having lawns in desert regions like California? No, we shouldn't, they aren't. Natural, native planting would do the job much better.

In the UK, we don't need to water our lawns. Let me repeat that: YOU DON'T NEED TO WATER YOUR LAWN!

A real lawn has a natural resilience to drought and will recover in a few weeks. It will recover sooner if it is full of a variety of nice, deep-rooted perennials such as dandelions that bring water close to the shallower roots, rather than being a monoculture.

Q: Aren't artificial lawns better than concrete or paving because they have drainage?

I agree that non permeable surfaces like concrete aren't great and I rarely put them in my designs. Good quality fake lawns do have drainage holes, but beneath is a thick layer of sand and aggregate and sometimes weed control fabric which heavy amounts of water will struggle to percolate through.



By laying plastic grass over soil, you are preventing all sorts of natural functions, like organic matter being drawn down by worms. You are also removing absorption by plant roots. So, as a result of having no worms, insects or plants you are leaving the soil beneath unhealthy.

Soil without natural organics or aeration will become compacted, therefore you are still contributing to downstream flooding. Badly laid fake lawns can look like this:



Q: But my garden isn't boggy?

That maybe so but if your garden isn't storing water, it will be moving it on quickly to somewhere else and making it someone else's problem.

Q: But won't it pay for itself because it's a oneoff purchase?

With an average lifespan of 7-10 years, your artificial grass will need replacing many times in one generation. Artificial grass is not cheap:

Artificial Grass Cost Calculator

The table below shows typical artificial grass prices for different sized lawns. You should be able to calculate your lawn's area and compare it to these figures.

Lawn area (m²)	Shockpad cost (£/m ²)	Turf cost (£/m²)	Total shockpad cost (£)	Total turf cost (£)	Total artificial Iawn cost £
10	£30 to £40	£20 to £30	£300 to £400	£200 to £300	£500 to £700
20	£30 to £40	£20 to £30	£600 to £800	£400 to £600	£1000 to £1400
40	£30 to £40	£20 to £30	£1200 to £1600	£800 to £1200	£2000 to £2800
100	£30 to £40	£20 to £30	£3000 to £4000	£2000 to £3000	£5000 to £7000

Although these prices include VAT, they don't include transport and handling and some manufacturers charge extra for this. Also, the prices don't include jointing adhesive and tape, or how much for a gardener to lay the turf.

Remember that the artificial grass installation cost will vary depending on whereabouts you are in the country. London and the Southeast of England will be more expensive than these figures while the costs in other parts of the country will be significantly lower.

Remember how cheap paying for a gardener is!

The environment and biodiversity are paying the tab for cheap plastic grass, also consider the ongoing costs after it is ripped out and thrown in a skip. There is no long-term saving when the product has a such a short life span before ending up in landfill or incineration.

References

1. https://expressgrass.com/turfmatic-electric-artificial-grass-broomsweeper.html

2. https://www.artificiallawn.co.uk/blog/how-much-does-artificial-grasscost/

3. https://www.maraz.co.uk/products/landxcape-lx799-300m2-robotic-mower

4. https://www.theguardian.com/lifeandstyle/2016/oct/29/pain-in-the-grassalternative-lawns-artificial

5. https://www.planetnatural.com/organic-lawn-care-101/history/

6. https://www.easigrass.com/news/take-it-easi-on-your-artificial-lawn-thissummer/%.

7. https://lawnpros.biz/hot-artificial-grass-get/

8. https://www.artificialgrass-direct.com/artificial-grass-can-be-recycled/

9. https://www.endocrine.org/news-and-advocacy/news-

room/2020/plastics-pose-threat-to-human-health

10. https://goodonyou.eco/material-guide-nylon/

11. https://www.hygienesuppliesdirect.com/files/static/Pro-

Kleen%20Artificial%20Grass%20Cleaner%20(15165)%20Fresh%20Cut%20Grass.pdf

12. https://www.installitdirect.com/learn/how-much-water-can-i-save-withartificial-grass/

13. https://turf.co.uk/