



TO PLASTIC GRASS & PLANTS



SOCIETY OF  
**GARDEN +**  
**LANDSCAPE**  
**DESIGNERS**

Marian Boswall MSGLD

# SAY 'NO' TO PLASTIC GRASS & PLANTS

The biodiversity of our planet is under threat like never before. Over the last 50 years, wildlife populations have plunged by more than two thirds (69%), with numbers of mammals, birds, fish, amphibians, reptiles and insects plummeting in countries across the globe. Amongst these, the UK ranks as one of the most nature-depleted countries in Europe.

Loss of natural habitats caused by the decline in the quality of our gardens and green spaces and the loss of 'green corridors' in our cities, is one of the main reasons for this rapid depletion.

Over recent years the huge growth in the use of plastic grass and plants has exacerbated this to an alarming degree, with devastating effects on both the environment and biodiversity.

Following on from the commitments in our Manifesto for Sustainable Landscape and Garden Design, the Society of Garden and Landscape Designers is campaigning to raise awareness of the extreme environmental damage caused by these products and to encourage the landscape industry and the public to say 'No' to using them, with the support of the Royal Horticultural Society (RHS) and the Landscape Institute (LI).

Whether you're a garden designer, landscaper or if you're thinking about laying a plastic lawn in your own garden, this guide aims to debunk the claims that these products are 'eco-friendly' and provide guidance and advice on using 'greener' more sustainable alternatives.







Andrew Duff MSGLD



Charlotte Rowe MSGLD

## WHY PLASTIC GRASS AND PLANTS ARE BAD FOR BIODIVERSITY & THE ENVIRONMENT

### ■ They destroy natural habitats and soil

Plastic lawns are a no-go zone for wildlife. It takes 2000 years to form 100mm of topsoil. In order to install plastic grass this will be dug out and putting a layer of plastic on what's left will suffocate it. Earthworms, natural organisms and fungi that thrive in the soil will be killed, plants will be eliminated and all sources of food and habitat for insects, birds and animals will be destroyed.

### ■ They contribute to carbon emissions

Plastic grass and plants are made from fossil fuel-based plastics, the extraction and subsequent processing of which is a net producer of CO<sub>2</sub>, not to mention the carbon emissions produced by shipping it from overseas manufacturers, all of which contributes to global warming through the emission of these greenhouse gasses. By contrast a real grass lawn both processes and absorbs CO<sub>2</sub>. This ongoing benefit of real grass to the environment is likely to far outweigh the emissions of a lawn mower used to maintain it.

### ■ They contribute to urban heat islands

When heated by the sun, real lawns cool themselves naturally through evaporation. In contrast, plastic lawns absorb the heat creating heat 'islands' that can be 26° C hotter than the surrounding air.

### ■ They cause flooding

Unlike natural lawns which absorb almost every drop of rain helping to slow the flow of water into drains, plastic grass absorbs less than 50% causing run-off and, in turn, flooding.

### ■ They pollute our waterways

Over time the plastic used to make artificial grass and plants breaks down and is washed into our drainage system from where microplastics are discharged into our rivers and seas.

"EVERY ARTIFICIAL GRASS LAWN LAID MEANS ONE LESS LIVING ONE, WITH DEVASTATING CONSEQUENCES FOR MICROORGANISMS IN THE SOIL BENEATH AS WELL AS THE BUGS AND BIRDS ABOVE. COMPARE THAT TO A REAL LAWN WHERE A VAST ECOSYSTEM OF ORGANISMS, MICROBES, INVERTEBRATES AND PLANT LIFE CAN THRIVE HELPING BOTH THE FOOD CHAIN AND BIODIVERSITY."

Lynne Marcus MSGLD  
Co-Chair of the SGLD



"NATURE DELIVERS COUNTLESS BENEFITS TO HUMAN HEALTH, WELLBEING AND SOCIETY BUT BIODIVERSITY IS IN DECLINE. THE LANDSCAPE INSTITUTE HAS DECLARED CLIMATE AND BIOLOGICAL DIVERSITY EMERGENCIES TO RE-ENERGISE THE LANDSCAPE SECTOR'S RESPONSE TO THESE GLOBAL CRISES. BY ADOPTING A PLANET FRIENDLY GARDENING APPROACH TO DESIGN, WE CAN HELP TO MITIGATE THE IMPACT OF CLIMATE CHANGE AND PROMOTE BIODIVERSITY."

The Landscape Institute





Cassandra Crouch MSGLD



Clive Nichols, Richard Miers MSGLD

## THE FACTS ABOUT PLASTIC GRASS AND PLANTS

### ■ They are not biodegradable

Artificial grass and plants are made from a mix of plastics including polypropylene, polyurethane and polyethylene. None of these materials are biodegradable.

### ■ They can't be recycled

Plastic grass and plants cannot be recycled. Even for those products that claim to be recyclable in principle, there are currently no suitable recycling facilities in the UK.

### ■ They don't last forever

Plastic grass has a lifespan of about 15 years after which it will be diverted to landfill where it will continue to pollute the environment.

### ■ They are not maintenance-free

Over time plastic grass will accumulate a build-up of excrement and urine from animals and other wildlife including birds, mice, foxes and dogs; as well as organic detritus such as self-seeding grasses, weeds and moss. This means regular cleaning with disinfectant and other chemicals.



# WHAT ARE THE ALTERNATIVES TO PLASTIC GRASS?

## ■ Traditional Lawns

Grass lawns are sustainable, environmentally friendly and safe for animals and children to play on. They also have a natural resistance to drought so if you are worried about the amount of water needed to keep them alive, don't be! As a species, grass is one of the toughest plants on the planet and will recover as soon as it rains.

However, if you're looking for something that requires less maintenance, will stay green all year round or you have a particular use in mind, there are all sorts of alternatives that you can consider.

## ■ Low-Mow Lawns

Tapestry lawns combine low-growing flowering plants that are low in maintenance and high in ornamental value to create a vibrant patchwork of colours and textures.

Not only are they beautiful, they also attract wildlife, absorb rainfall twice as fast as a turf lawn and don't need feeding. They also require less mowing than a regular grass lawn, although it's worth remembering that grass lawns can be allowed to grow longer too. Even a small area of uncut grass will give a great wild home to nature.

Chamomile lawns are also a good low maintenance alternative to grass, requiring no regular mowing, fertilising or watering and helping to improve the soil and attract pollinators.

## ■ Drought-tolerant lawns

Clover lawns are a great drought-tolerant alternative to traditional lawns which don't require mowing or watering and will stay green all year round, with the added benefit of a beautiful starscape of flowers during the summer.

They can also be trodden on without causing damage, will attract pollinators and wildlife and, because clover is a legume, it takes nitrogen from the air and sinks it into the ground providing a natural boost of fertilizer for itself and any surrounding plants.

## ■ Lawns for play

Natural lawns, which can be looked after in the autumn and re-seeded as necessary are still one of the best options for play.

As well as providing a great surface for ball games, on natural lawns children will come into contact with soil and immune-boosting microbes, offering a nature-based play experience that is good for their health and well-being. Compare that to plastic lawns which ongoing research indicates cause higher rates of injury than natural grass and release toxic gases into the air which are then inhaled.

Pratia pedunculata lawns are one of the toughest and hard-wearing of all non-grass lawns when established. A mat-forming evergreen plant studded with tiny white flowers through spring and summer, it has been tested as a sports-turf option, making it great for those with kids and dogs.



Helen Elks-Smith FSGLD



"PLASTIC GRASS CREATES A STERILE, LIFELESS AREA IN THE GARDEN WHICH HAS BEEN SHOWN TO HARM EARTHWORMS, EXACERBATE FLOODING RISK, CONTRIBUTE TO THE HEAT ISLAND EFFECT, AND SHED TINY PLASTIC PIECES, KNOWN AS MICROFIBERS, WHICH ARE HARMFUL TO THE HEALTH OF ANIMALS AND PEOPLE. BY ADOPTING A PLANET FRIENDLY GARDENING APPROACH TO DESIGN, WE CAN HELP TO MITIGATE THE IMPACT OF CLIMATE CHANGE AND PROMOTE BIODIVERSITY."

Mark Gush

Head of Environmental Horticulture at the RHS



Lynne Marcus MSGLD

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**RHS**

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