

Benefits of Grass

There are benefits to having a healthy and sustainable lawn that often go overlooked in the debate over the suitability of lawns in today's world where water and resource scarcity is a constant concern.

What are some of the issues with grass?

- Water consumption: in some communities, 50% of residential water supply goes towards the maintenance of lawns and gardens. This can put stress on municipalities' water supplies in drought-prone areas.
- Chemical inputs: over-watering, over-fertilizing, or improper application can cause chemical fertilizers and pesticides to runoff into local waterways causing dangerous and expensive water pollution (natural fertilizers and pesticides run off too, but because of their composition, the pollution hazard is significantly reduced). They can also be blown into the air or run into waterways if they aren't watered into the grass in a timely fashion or are overwatered..
- Equipment: the equipment used to maintain lawns is a significant contributor to ground-level air pollution.
 - o Small engines contribute 5 to 10% of the nation's air pollution and play a major role in summer-time ground-level ozone.
 - o EPA says... 1 hour, 1 lawn mower pollutes the same as 40 late model cars, emits hydrocarbons equal to an SUV driven 23,600 miles and contributes 93 times more smog forming emissions than 2006 model cars.
 - o Gas lawn mowers run at 100 decibels, anything over 90 decibels causes hearing damage.
 - o Mowers consume 580 million gallons of gasoline annually and more gas is spilled during refueling each year than was spilled in the Exxon Valdez oil spill.

Available alternatives:

- Choose a native grass or a type of grass that is well suited for your climate significantly reduces necessary water and fertilizer inputs.
- Water lawns in the coolest part of the day and mow grass taller (further water conservation techniques can be found here: http://www.american-lawns.com/lawns/water_conservation.html).
- Xeriscape: xeriscaping is landscaping in a way that requires significantly less water and maintenance, often times requiring no irrigation at all.
- Use electric lawn care equipment and organic fertilizers or choose a lawn care company that provides service using these products:
 - o Emit 3,300 times less hydrocarbons, 5,000 times less CO, one-fifth as much NOx and less than half the CO2 as gas lawn mowers
 - o Noise emissions are cut by 50-75%
 - o Most pollution comes from power plants used to recharge batteries and if solar and wind energy is used, the emissions are reduced to close to zero
 - o Electric mowers are 90% energy efficient whereas gas mowers are only 15%

Benefits of lawns

The reality is that there will always be a significant portion of the population that wants a lawn their children can run barefoot on, they can have a comfortable picnic on, their dogs can lay in the shade on, or on which they can play soccer. There are many benefits of lawns when they are maintained in a responsible and sustainable manner:

- A healthy lawn increases soil stability through its deep and expansive root structure which reduces land degradation and erosion from wind and water.
- Lawns cool the air: according to a Mississippi State University study, a healthy lawn has the same cooling effect as an 8.5 ton air conditioning compressor. About ½ the heat energy directed to a grassy area is eliminated by evapotranspiration. Non-vegetative surfaces (like rock, artificial turf, cement) do not have the same cooling effect and in some cases, can actually create a mini 'heat-island' effect, increasing the ground-level temperature.
- Some consider artificial turf a favorable alternative to grass, however there are many issues surrounding artificial turf:
 - o Artificial turf is made from petroleum-based materials which are resource intensive to manufacture and transport.
 - o Some artificial turf is painted with lead paint creating an unsafe recreation area for children.
 - o Artificial turf has also been shown to leach zinc, organic compounds and other chemicals, particularly from the crumb rubber infill.
 - o Soil health and stability are greatly reduced in the absence of root systems and organic matter from grass and other vegetation.
 - o Lawns act as a carbon sink, taking up CO₂ from the atmosphere, thereby playing a small role in managing global climate change. The 40 million acres of lawns in the US take up between 6 and 17 teragrams of carbon each year depending on how they are managed, according to NASA. Also, leaving grass clippings on the lawn increases carbon uptake. Tearing up grass to install artificial turf releases significant amounts of CO₂ into the atmosphere.
- Lawns act as natural filters taking up dust, pollutants, and particulate matter from the air and water (up to 12 million tons per year).
- Lawns significantly reduce noise pollution, particularly in urban areas.