

# The Functional Benefits of Turfgrass

In addition to stabilizing the soil, lawns offer many other benefits as well. Each makes life more enjoyable.

Turf moderates the climate. It cools city streets and reduces energy costs of cooling homes and businesses. Concrete and other hard building materials often cause urban areas to be ten degrees warmer than nearby rural areas. According to The Lawn Institute, eight average-sized lawns have the cooling effect of 70 tons of air conditioning; the average home-size air conditioner has just a three-to four-ton capacity.

Turf also reduces noise levels by as much as 30 percent and cuts glare along roadsides, which poses a hazard to drivers and an annoyance to those in homes and offices. Turf's rough surface breaks up incoming sunlight.

As with ornamentals, healthy turf provides a zone of protection that slows the spread of wildfires around buildings.

A thick lawn improves quality of life. A healthy lawn averages six turfgrass plants per square inch and 850 plants per square foot. There are eight million plants in an average 10,000 square foot yard. Each plant converts carbon dioxide from the air into the oxygen we breathe. A turf area 50 feet by 50 feet releases enough oxygen to meet the needs of a family of four. Turfgrass also absorbs smog-produced ozone and sulfur dioxide.

When it intercepts rain, turf prevents hardening of the soil. If turfgrass leaves didn't take the brunt of the downward force of raindrops, driving rain would wash away soil and leave the top layer hardened. Turf's root systems helps the soil breathe and allows water to enter the soil.

Similarly, turf reduces runoff of water and nutrients. In fact, agricultural extension agents recommend grass buffer strips around cropland and feedlots to reduce runoff and keep nutrients from entering waterways.

Because of its ability to remove nutrients from water, turf is used as a living filter to clean up sewage waste. Waste water is applied to turf and soil to be purified before entering groundwater systems.

On another safety front, turf is required along airport runways to prevent dust from flying into aircraft engines. Along highway roadsides, turf serves the same purpose. Turf also serves as a safety strip in case a plane strays from the runway or a car runs off the highway.

Despite its appearance as a beautiful, lush carpet of green, a lawn plays a vital role in minimizing dangers around the home.

Turf that is free of weeds and mowed regularly provides a safe haven for allergy sufferers. The National Institute of Allergy and Infectious Disease reports 35 million Americans suffer from allergies and nine million of those have asthma. By stopping seedhead formation of turfgrass with specialized pesticides and cultural practices, a source of pollen is eliminated. Healthy turf is estimated to trap much of the 12 million tons of dust and dirt released each year into the atmosphere.

Turf provides solid footing and cushion on sports fields. It is an important safety factor for sports such as football, baseball, soccer and rugby. A study by the Sports Research Institute, the National Athletic Injury/Illness Reporting Service, and the Pennsylvania State University found that one in five injuries and about 44 percent of ankle, foot, and knee injuries are field-related. Fields in better playing condition are safer. The study also found that although practice fields were used much more than game fields, they received less care.

*Excerpts from Pesticides in Your Environment, published by RISE, Responsible Industry for a Sound Environment, 1155 15th St., NW, Washington, DC 20005. (202) 872-3860.*