ENVIRONMENTAL BENEFITS OF TURFGRASS

TURFGRASS REDUCES RUNOFF

Turfgrasses slow down the speed and reduce the force of flowing water, allowing more of it to be absorbed in the soil to the benefit of groundwater reserves. Also, any sediment that has also been picked up by the water is invariably trapped within the stand of turfgrass. This prevents many of the pollutants and other chemicals that rainwater gathers from ending up back in our water system; instead they go in the soil where they can be broken down safely.

TURFGRASS REPLENISHES AIR

Plants take up carbon dioxide and release oxygen into the atmosphere (air) and grass is no exception. The amount of oxygen that a 15 x 15m lawn produces can support 4 people for the entire year. The average 18 hole golf course has been studied and is known to produce enough oxygen for 10,000 people! Well managed turfgrass also helps reduce pollen production by preventing the growth of weedy species which produce significant amounts of airborne pollen. Dust and other airborne allergens are also prone to getting trapped within stands of turfgrass.

TURFGRASS PROMOTES SAFETY

Healthy turfgrass serves as a barrier to fire damage and is capable of preventing large fires from spreading out of control. Well maintained lawns also deter insect pests from invading and creating their habitat and rodent pests are typically deterred from crossing large areas of turf. Turfgrass is also a soft surface for recreational purposes. It is important for a variety of sports as statistics indicate injuries are reduced when compared with artificial surfaces. Natural turf also offers a safe, resilient surface for children, many of which are prone to injuring themselves while playing.

TURFGRASS SEQUESTERS CARBON

Stands of healthy turfgrass play an important role in carbon sequestration, or removal of carbon from the atmosphere. During photosynthesis, carbon dioxide is converted into plant biomass allowing for long-term storage of carbon below ground within roots. Where grassland systems differ from other ecosystems is that the ratio below-ground biomass to above-ground biomass is relatively large. Since turfgrass is an undisturbed and highly productive system, it has the ability to sequester a large amount of carbon with studies showing that a hectare of golf course turf is capable of sequestering 1 tonne of carbon into the soil per year for 30 years.

As this sequestration occurs primarily in the soil it is a more stable form of carbon storage than with above-ground plant biomass.

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