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Environmental Benefits of Turfgrass
WATER PURIFICATION & REDUCED RUNOFF

"Turfgrass purifies water as it leaches through the root zone and down into our underground aquifers."

- Source: Maryland Turfgrass Survey – 1996 - An Economic Value Study

One of the major causes of our growing water quality problem is runoff of contaminants from hard surfaces, such as roads and parking lots. Unfortunately, with expansion and building development open space is lost to these impervious surfaces.

Runoff can be reduced by establishing new lawns and turfgrass areas. The biology of turfgrass makes lawns a near ideal medium for the biodegradation of all sorts of environmental contamination. Turfgrass purifies the water as it leaches through the root zone and down into our underground aquifers. Soil microbes help break down chemicals into harmless materials. This filtration system is so effective rain water filtered through a good healthy lawn is often as much as 10 times less acidic than water running off a hard surface.

These filtration properties are also the reason that turfgrass is used to help recycle effluent water. Reclaimed water cannot be returned to most municipal water supplies or released into streams, lakes or oceans. But it can be irrigated onto turfgrass where it's cleaned as it passes down through the root zone. Ten percent of U.S. golf courses are already using effluent water for their turfgrass irrigation.

(MORE)

Other studies referenced by Dr. James Beard and Dr. Robert Green ("The Role of Turfgrass in Environmental Protection and Their Benefits to Humans") have shown a similar ability of a turfgrass cover to reduce runoff, and therefore enhance soil water infiltration and groundwater recharge (Bennett, 1939; Gross et al., 1991; Jean and Juang, 1979; Morton et al., 1988; Watschke and Mumma 1989). Finally, the reduced runoff volume from turfgrass covered areas offers the potential to decrease the storm-water management requirements and costly structures used in urban development (Schuyler, 1987). Turfgrass ecosystems can support abundant populations of earthworms (Lumbricidae) of from 200 to 300 per square meter (Potter et al., 1985, 1990a). Earthworm activity increases the amount of macrospore space within the soil that results in higher soil water infiltration rates and water-retention capacity (Lee, 1985).

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