



FOCUS

This discussion of the value of turfgrass as it relates to the well being of humanity and the environment could serve as a refresher course of the information that customers and the public, in general, need to remember. Members are encouraged to photocopy this article and pass it along to end-user customers when possible.

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Grass areas provide a backdrop and color contrast to flowering landscape plants.



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Environmental Issues

Turfgrass Values— Or, Why Turf Producers are My Heroes

Turfgrass producers grow a crop that is not always recognized for its true value. We don't eat it. Yet turfgrass areas enhance our psychological, physical and financial well being in addition to benefiting both the natural and social environments in which we live. Turfgrass adds value to our lives every day.

In fact, lush green grass is one of the most calming, soothing things we encounter each day. According to the psychology of color, green is the most popular indoor decorating color due to its calming and refreshing effects; it symbolizes nature because it is the most common color we encounter in nature during the growing season. Green is the easiest color on the eyes and it can actually improve vision.

But lush green grass is not only refreshing due to its color. One small lawn (25 ft. x 25 ft.) produces enough oxygen each day to meet the needs of one adult for a full day, and eight such lawns are said to have the cooling effect of 70 tons of air conditioning, which is sufficient to cool around 16 homes. And because the grass converts carbon dioxide to oxygen during photosynthesis, it also helps to reduce the effects of global warming. The healthier the turf, the more carbon dioxide it can eliminate.

That same well maintained lawn provides a safe surface for a child's play area, and a relaxing atmosphere for barbecues and other family activities. Even the lives of our neighbors are enhanced by our lawns. In addition to creating a pleasant view, a uniform lawn surface can project a sense of "coherence and harmony," creating a peaceful setting that contributes to an overall sense of well being and decreases emotional tension. Unpleasant glare is diminished, further enhancing the enjoyment of a sunny day.

Healthy lawns also contribute a six to 15 percent increase in property value. They even help protect us from loss and injury by creating a natural fire retardant barrier surrounding our homes.

But healthy turfgrass areas don't just benefit us individually. They also benefit our natural and social environments. We hear a lot about surface and groundwater contamination and many states have laws to protect



As more ground is covered with pavement and other impermeable surfaces, the role of turfgrass in water filtration becomes increasingly important.

these essential resources. In addition to the preventing soil erosion from water and wind, the impact of a healthy, properly maintained lawn on both surface and groundwater is very positive and counterbalances the potential for pollution created by the minimal pesticide input required for maintenance.

As urban expansion creates more paved, impermeable surfaces, there is a corresponding increase in poor quality storm water run-off that ends up in lakes, streams and rivers. This run-off contributes to sedimentation and pollution that decreases water quality.

Our lawn grasses provide one of the most effective groundcovers available to prevent erosion and increase water infiltration into the soil. Research over the past 10 years has demonstrated that storm water run-off from a healthy, relatively dense lawn rarely occurs, even on modest slopes [and] in all but very intense rainfall, storm water run-off from a healthy, relatively dense lawn is at or near zero.⁽¹⁾

This process of water filtration also helps recharge groundwater supplies. The turfgrass root zone, which is dense and fibrous, traps and removes nutrients and other pollutants from the water as it moves down through the soil and improves water quality.

Soil is also improved by lawn grasses. The annual sloughing off of plant tissue adds humus to the soil and increases microbial populations and activity. This adds a great deal of organic matter to the soil over time. Even compacted soil will improve without any other activity than establishing lawn turfgrass. This soil structure improvement enhances root depth and the filtration capacity of the lawn area for further improvements in water quality.

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In addition to trapping pollutants, the increased microbial activity in the root zone of turfgrass acts to break down many of the commonly used turfgrass pesticides "into the basic elements of carbon, oxygen, hydrogen and... mineral elements such as nitrogen and phosphorous."⁽²⁾

While the root zone is filtering our water, the turfgrass is filtering our air. The urban environment endures a constant onslaught of smoke and dust generated in part by our many automobiles. Turfgrass blades trap dust, smoke and other particulate matter, which is then washed down into

the soil where it is filtered through the root zone and prevented from re-entering the air we breathe.

Smoke and dust are not the only things in the urban air that get trapped by turfgrass and other plants. Noise is also absorbed, decreasing the excessive sound associated with our cities. Slopes next to freeways that have been planted in turfgrass reduce noise by eight to 10 decibels.⁽³⁾ Lawn areas also contribute to a reduction in noise levels by absorbing, deflecting and refracting the many sounds that surround us.

It has even been speculated that many of the social problems which are associated

with life in the inner city may be related to the absence of lawns and other ornamental plants. It has been noted that when neighborhoods are cleaned up and plants added to the landscape, there is an increase in neighbors working together for mutual benefits, strengthening the community through improved relationships.

Even the Environmental Protection Agency acknowledges the value of a healthy lawn. According to the EPA, a healthy lawn, managed with environmentally friendly practices can:

1. Reduce dust and air pollution
2. Reduce high temperatures and noise levels in urban areas
3. Create critical shelter and food for wildlife
4. Reduce energy use for the heating and cooling of buildings
5. Filter pollutants
6. Reduce erosion, stream sedimentation, flooding and runoff of pollutants into local waterways
7. Provide for a safe play area for children
8. Reduce the risk of pesticide exposure to children, adults, pets and wildlife
9. Build healthy soils
10. Attract wildlife and beneficial insects⁽⁴⁾

So grow that grass with pride. The grass you grow today will not only provide you with a source of income, it will enhance the lives of everyone who encounters it and help to preserve our natural environment for future generations. What more can you ask from a hero today?

References & Sources

(1), (2), (3) Environmental benefits of a healthy, sustainable lawn, Sustainable Urban Landscape Information Series, Regents of the University of Minnesota, 1998-2003.

(4) HEALTHY YARDS, HEALTHY LAWNS, HEALTHY ENVIRONMENT, EPA Region 3 Waste and Chemicals Management Division; U.S. Environmental Protection Agency

The Many Benefits of Specialty Pesticides – RISE "Why pesticides?"

Professional Lawn Care Association and American Honda Motor, Co., Inc.

United States Environmental Protection Agency



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