ENVIRONMENT

Grass and the Environment

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TOO MANY people, grasses are viewed as one of the most, if not the most wasteful plant on the planet.

It takes up space where a building or field of crops could be. The grass at the side of the road takes up space, this area can be utilised for an extra lane on a highway making it wide enough to accommodate the growing number of vehicles in our country.

But these simple plants play a more important role in our environment than we realise, providing us with food, conserving soil and protecting our bodies of water from pollution.

When an area of land is disturbed by a fire or clearance, one of the first organisms that occupy the area is grasses. In this capacity, they are termed primary producers, as they are one of the first organisms present to capture the energy from the sun which is used for growth. With time, as generations of grass die and decay, enough organic matter accumulates to support larger and different forms of vegetation, like shrubs and trees. This variety of vegetation attracts a numerous animals as there are more microhabitats available for them to occupy.

Most species of grasses are considered generalists because they can tolerate a wide range of conditions for example, soil make-up, exposure to the elements, light, and temperature. This makes them ideal to occupy disturbed and exposed areas.

In their role as primary colonisers, grasses are also designed to disperse quickly for rapid growth. These plants produce tiny seeds that can be carried by the wind. Some species produce seeds that have special modifications that assist them in becoming airborne like feathery projections that easily catch the wind and carry the seeds to suitable substrates located further away.

Also, by producing small seeds, the plant does not put too much energy towards seed production. Producing many seeds also means that the plant increases the odds of some landing on suitable substrate and germinating.

Grasses also protect our environment, for instance, by preventing water pollution. They lessen the rate of run-off from precipitation. Therefore the water enters the rivers and streams at a slower rate. If the water came down in a rush the waterways would burst their banks and cause flash floods. The grass holds the soil together preventing soil erosion not only by wind but also by water, which if allowed to happen would cause much sediment to enter the waterways.

This sediment accumulates at the bottom of the river bed lessening the volume of water it holds. Sediments also make the water cloudy, preventing light from penetrating the surface to reach aquatic plants which provide food and habitats for aquatic animals.

Besides our environment, grasses are very important to the existence of humans, with one of the main reasons being that they are a major source of food. For instance, many major crops are grasses, like corn, rice, sugar from sugar cane and wheat for flour production. Grasses not used as human food crops are important in food production for livestock and dairy animals.

Also, with the world trying to wean itself off fossil fuels, there is a push towards using alternative fuels.

One such source of these fuels is the grasses after the crop has been harvested, for example, the stalks after the ears of corn have been picked.

Finally, at a time when our forests are being cleared at an alarming rate, all vegetation plays an important role in terms of cleansing the air by removing carbon dioxide in photosynthesis and producing oxygen.

Therefore grasses are not useless plants as some may view them to be.

Without them we would be without major sources of food both of plant and animal origin. Our environment thus benefits from the growth of grasses of all kinds.