



Did you ever wonder what plants eat? Mostly, they take things that humans don't want, like carbon dioxide and manure, and turn them into things that we do want, like oxygen and food. We eat plants to stay healthy, and we burn plants for fuel. We even use plants for wood to build houses, but plants can do a lot more. Scientists are using plants to clean up pollution. Plants can help to clean air, to clean soil, or to clean ground water.

The process of using plants to clean up pollution is called phytoremediation (fi'-toe-re-me'-de-a'-shun). "Phyto" means plant, and "remediation" means to remedy or cure. So, using plants to help clean up the environment is really a way to cure our planet of pollution that may harm us, other animals, or other plants.

All plants help to clean up the air by taking in carbon dioxide and giving out oxygen for us to breathe. Some plants, like spider plants and asparagus ferns, can also remove cigarette smoke and other pollutants from the air.

Trees may be used to clean ground water. The trees take in the dirty water through their roots, and sweat out clean water through the pores in their leaves. The pollution stays locked away inside of the tree until it dies.

Pine trees have been used in the southern United States to clean up ground water pollution, because they grow very quickly. The pine trees can also be used for lumber. Other trees that clean water are eastern cottonwood trees, hybrid poplar trees, and juniper trees.

Scientists have also used trees to clean not only the ground water, but also the soil. The plants soak up the pollutants in the soil along with water. In some cases, the plants take the pollutants apart. In other cases, the plants simply soak up the pollutants and hold on to them. Poplar and mulberry trees are the ones mentioned the most. Smaller plants like alfalfa and ryegrass can be used as well.

Plants can also team up with bacteria in the soil. The bacteria eat the pollution first and convert it into plant food. Then the plants soak up what is left.

Using plants to clean up pollution makes good sense, and the process results in cleaner air, cleaner water, and cleaner soils.

