University of New Hampshire
Cooperative Extension

UNH Cooperative Extension Info Line Question of the Week

Precipitation Fertilizer

Question: Someone told me the reason my lawn looks so green after it rains is because the rain fertilizes. Is that true?

Answer: Yes, rain and snow bring a wealth of life-giving nutrients. Lightning, in particular is a potent fertilizing agent. Every time there is a lightning strike, nitrogen in the atmosphere is combined with hydrogen or oxygen to form ammonium and nitrate, two forms of nitrogen.

The nitrogen produced goes into solution in the atmosphere and is washed to the ground in rain. Plants absorb this nitrogen from the soil and utilize it for growth. Roughly 250,000 tons of nitrogen are produced by about 1800 thunderstorms on earth each day.

Rain also carries other elements that aid growth. It is formed from the evaporation of moisture from water bodies, the soil, plants and even animals. Condensation returns rainwater to earth, but in the process it picks up some hitchhikers. One hitchhiker is dust. Dust can be carried thousands of miles on upper air currents, and comes down to earth during rainstorms. It carries with it a number of mineral nutrients necessary for plant growth. It also contains beneficial microorganisms that enhance plant growth.

Microorganisms aid in the breakdown of organic compounds into plant nutrients. They also create symbiotic relationships with plant roots: these aid in the uptake of nutrients. The level of elements and microorganisms benefiting the soil depends on the origin of dust. Ashes from fires contain potash, an essential plant nutrient. Debris from volcanoes, which can travel worldwide, contains many essential minerals for plant growth.
If you notice after the next storm that everything looks greener it may not be your imagination. It may be Mother Nature working her special magic.

Got questions? UNH Cooperative Extension Education Center's Info Line offers practical help finding answers for your lawn and garden questions. Call toll free at 1-877-398-4769, M-F, 9:00 a.m.-2:00 p.m., or e-mail us at answers@unh.edu