## The Value and Neglect of Nutrient Retention



Nutrients are the building blocks of life. They are nonliving chemicals that living things use to grow and sustain. It is up to living things to keep a supply of their necessary nutrients around.

This is a task that demands an entire team of living things. The team is made up of two major roles filled by different groups of organisms: Composers and Decomposers. Composers are autotrophs (make their food from energy sources) and include photosynthesizing organism like plants and algae. Decomposers are heterotrophs ("eat" their food) and include animals, bacteria, fungi, fish, etc. Composers take nonliving components and an energy source to grow themselves. Decomposers consume the bodies of composers and other decomposers to grow themselves. As a byproduct, they convert the living material back to the form that the composers can build from again. It is through this cyclical process that life sustains, while maintaining its supply of nutrients.

Unfortunately, one decomposer has created a disturbance in the nutrient cycle for life on land. Humans capacity to impact the nutrient cycle is so great, that, through our neglect, we have created environments on land where nutrients are not being retained. Rather, the nutrients are leeching into the waterways, eventually pooling in the gulfs and oceans, in turn causing a disturbance in those nutrient cycles. This disturbs those ecosystems, leading to massive algae blooms and death.

Monoculture (one crop) growing methods, which treat the soil simply as a media for root formation, not as a source of nutrients or important symbiotic relationships, flush nutrients through the fields and into the nearby streams or other waterways. This is one of the many issues with monoculture methods.

Retaining nutrients is simple, it only requires that a wide variety of organisms are allowed to thrive in an ecosystem. That is exactly the goal of a ReGenerations garden. Employing polyculture (many crops) planting schemes, and taking care to feed the soil bugs and microrganisms, the garden will be a more efficient retainer of its nutrients.

We can take the retention even further by composting, vermicomposting (worms), and converting our plumbing to gray/black water systems, which take care to recycle the nutrients in household plumbing. ReGenerations would love to assist people retain their home ecosystem's nutrients by setting up composting or vermicomposting systems.

Learn more about the nutrients plants need in our care guide.

Happy retaining!