Indigenous Lawns save Energy & Habitat

Everyone is entitled to a yard and garden. On the Outer Cape, **landscaped space should be balanced with indigenous space** to preserve natural habitat. Indigenous animals cannot feed on non-indigenous plants. The overuse of topsoil introduces more nutrients and higher pH, which translates into more of the nutrients being available, almost like free beer at a party. The results are equally predictable: there will be some unwelcome guests.

Cape Cod's soil is composed of varying degrees of sand/clay mix. Organic material is derived from microorganism decomposition of vegetation, mostly oak leaves and pine needles. Exposure (temperature and moisture cycles) controls decomposition rates.

Indigenous microbes (bacteria and micro invertebrates) flourish in these soil environments and enhance naturally occurring acids. The low pH soil composition and acid organic environment *limit the amount of available nutrients* for vegetation root systems. The low pH may also play a role in the actual absorption process of root systems.

In this relatively stable but nutrient stressed environment, specific indigenous plants have evolved and flourished. Insects, reptiles, amphibians and mammals have utilized the vegetation as sources of food and shelter and co-evolved with indigenous

vegetation. Variations in landform created variations in exposure to environmental stresses of wind, temperature, moisture and salt spray. Subsequently, these variations developed specific local and microhabitats. During the past few thousand years relatively stable indigenous communities co-evolved into indigenous habitat.

Changes affecting any component of this interactive plant/animal dynamic are compensated for by some change somewhere in population dynamics within the overall system. *Impacts to any sustainability energy exchange between plants (seeds, fruits, leaves and roots) and animals (insects, rodents, birds and carnivores), may profoundly impact each other's survival*.

Restoring indigenous habitat is simplicity itself: a thin layer of free compost from local transfer stations; a thin later of mulch, also free from the same place; Seeding with a colonizing Conservation Mix of seeds, available from any nursery; a thin covering of pine needles or straw, which lets light in but protects against temperature and moisture extremes; a few days of watering and nature will take it from there. We sometimes include indigenous plantings to speed up habitat evolution but natural re-seeding from adjacent habitats will be successful. Windblown indigenous seeds will be welcomed by the pH and invasives will be discouraged. Limited hand watering may be necessary, during drought, in the first four months. Watering

should be done in the early morning to prevent temperature shock to the new plants.

Indigenous plant communities contribute to the creation of habitat values by providing shelter and food for indigenous animals. The use of fertilizer creates fatter, sweeter leaves, like plants on steroids. Insects have the ability to chemically sense sweet vegetation and begin arriving. So we turn to pesticides, which impact the microorganism community which was producing our nutrients. So we use more fertilizers. Invasive vegetation begins showing up. So we turn to herbicides. These yard and garden chemicals enter the groundwater and we drink them with our coffee.

The values of an indigenous lawn area:

1. Never needs mowing
2. Never needs watering
3. Never needs fertilizer
4. Never needs pesticides
5. Never needs herbicides
6. Protects indigenous habitat by providing food
7. Protects indigenous habitat by providing shelter

Gordon Peabody, April 2008