

December 9, 2020

Integrated Pest Management and Plant Health Care Practices for the Campus Landscape

For almost 20 years the Grounds Crew has not utilized pesticides to maintain the campus landscape. Sustainable Integrated Pest Management and Plant Health Care practices are followed. There have only been a couple instances in the past few years where herbicides were utilized to control Poison Ivy. Since the use of pesticides is not resorted to, every cultural practice possible is utilized. We regularly seek out and try new or proven practices, equipment etc.

Design:

New landscapes or plantings begin follow our Grounds Design Standards; the Campus plan; plant health care principles; cultural and maintenance practices experienced on campus or ones that are within our resources.

Plant Material and Hard Material Choices:

Native plants are considered first for all plantings. Only exotic species that are not invasive are used. Sunlight levels, amount of exposure, wind, soil conditions, soil volume and campus salt use must all be considered. Only plant material that can thrive under our maintenance regimes and within our current resource allocations are chosen. Hard materials that are sturdy, long lasting, vandal proof and require minimum maintenance are chosen.

Cultural Practices:

All cultural practices will maximize the plant's health, are species specific and utilized at the optimal time to promote good health.

Examples for turf → correct seed cultivars for the soil, light and wear of the area; over-seeding; optimum long mowing height and frequency; top-dressing with compost; aeration; irrigation for sports turf and high use turf; late fall fertilization in high use areas; out compete weeds; accept weed populations.

Examples for annuals, perennials & shrubs → use of perennials over annuals; minimal use of annuals; cultivar selection(s) that are insect and disease resistance; diversity of species; correct plant spacing; usually used in planters or feature locations; optimal watering and fertilization; any required trimming, pruning, deadheading and dividing; replacement as required.

Examples for trees → native tree species considered first; species or cultivar selection(s) that are insect and disease resistance; spaced for optimum growth and form; species without negative attributes chosen (i.e. excessive seed development, shallow root growth etc.); soil type and condition considered; species with good structural form chosen; ultimate size for the space; young tree care to develop good structure for future health; good establishment care.

Examples for weeds → out-compete, do not allow to seed, physically remove, MULCH with organic mulch, accept some species, renovate the bed, utilize good quality soil.

Identification and Monitoring of Plants & Pests to Set Action Thresholds:

Due to not utilizing pesticide control methods, we must identify and know plants and pests in order to avoid or react to their presence. Knowledge of the plants, pests, the cultural requirements and weaknesses is paramount for effectively utilizing cultural methods of control. The physiology, biology, growth cycles, growth habits, companion plants, soil conditions etc. all must be considered to determine the right, on-going course of action and the timing of that action.