



Integrated Pest Management Weed Threshold Guidelines

Newton's parks, athletic fields and turfgrass are very important to active and passive recreation and represent some of the City's largest assets. Within turfgrass, there are different levels of use, from residential lawns to professional sports fields. Each classification of turfgrass has a different usage range. Today there is an increased demand for field usage in the City of Newton due to an increase in the number of field user groups. As demand for field use increases, generally turf quality declines. When there is turf decline, pest thresholds rise. Newton's IPM plan involves quantifying the weed threshold limit.

The definition of an IPM pest threshold or tolerance level is the point at which the grower of a crop reaches a scientifically determined pest level that could cause economic damage. It's important to also consider the impact loss to both the passive and active user of the site. The various steps used in Newton's IPM program are site monitoring, reducing compaction, slice seeding, proper mowing heights, improving fertility and pH through soil samples, proper fertilizers, maximizing irrigation efficiency, proper pest identification, determining pest tolerance levels, recordkeeping, continuing education and research. Through the diligent use of these IPM tools and cultural practices, pest populations should be reduced and pesticide use should be lowered once the pests are below Newton's IPM threshold limit.

The following are the Parks, Recreation & Culture guidelines for IPM weed threshold levels in turfgrass. We will use a two-foot by two-foot sampling grid to document weed quantity and weed size. There are twenty-five individual quadrants within one sampling grid. We will take 30 photographs per location using the sampling grid - this will yield 750 quadrants. Random areas will be photographed throughout an entire field - high use areas (goal mouths, center of field), low use areas (field perimeters) and spectator areas. Weeds will be counted in each individual quadrant of the sampling grid. A weed pest threshold will be reached when recorded weed populations exceed 20% of the total individual quadrants for one location. When a weed pest threshold is reached our formal IPM process is activated.

