

Integrative Pest Management

In order to reduce/eliminate weeds which are described as unwanted vegetation, the city's parks division uses an industry standard method known as an Integrated Pest Management (IPM) plan. IPM is an overarching industry standard term used to standardize protocols for routine and non-routine application of pesticides.

Inherent in the IPM responsibility is the management of pests, including unwanted vegetation, insects, rodents, and fungus. However, for the purposes of this study session regarding IPM landscape maintenance, only the management of unwanted vegetation (weeds) will be discussed.

The IPM strategy for landscape management of weeds starts with using the least environmentally damaging methods such as physical, mechanical, and cultural controls as beginning options. Further options are the use of an organic or synthetic chemical for vegetation removal/elimination in appropriate areas for extremely difficult circumstances and are only used as a last option. Organic and synthetic chemical controls for vegetation removal are known as herbicides. Although the industry standard term of IPM is used, only herbicides will be discussed during this study session when referencing chemical control for weeds.

The objective of the city's IPM approach to weed management is to use physical, cultural, mechanical, biological and chemical control options in the decision-making process for weed removal. The following strategies are listed in order of first choice of physical removal to the last choice with use of chemical controls for weed management.

1. Physical prevention includes using transplants, amendments and mulches that are known to be weed-free. Cleaning vehicles and equipment to prevent the spread of weed seed and weed plant parts from one area to another. Prevention also includes removing weeds before they can form seed heads or spread by other methods.
2. Cultural controls are management practices that reduce the incidence of weed infestations by using proper planting times and planting rates, planting mulching, managing fertilization and irrigation to favor desired plants rather than weeds.
3. Mechanical controls physically disrupt the weed by hand-pulling hoeing, mowing, tilling and flooding.
4. Biological control is the use of a living organism to manage pests. This method rarely results in complete eradication of weeds and is rarely used.
5. Chemical control involves the use of herbicides, synthetic or organic, to manage pest plants.

The city's park maintenance staff and its contracted services all rely heavily upon the above methods for managing weeds within the three landscape type areas of the city, parks, civic sites, and roadway landscapes.