SMARTER PEST MANAGEMENT

Pollinator Protection for Cities and Campuses



LEFT: Selecting pest-resistant plant varieties, such as this flowering pear, can help reduce reliance on pesticides. MIDDLE: Diverse combinations of plants adapted to your region can draw in beneficial insects that control pests. RIGHT: Curtailing the use of bee-toxic pesticides can help protect dwindling pollinator species like this endangered rusty patched bumble bee (*Bombus affinis*).

Opportunities abound in cities, towns, and campuses to support bees, butterflies, and other wildlife. Many outdoor spaces—from parks and school grounds to roadsides and business campuses—can provide valuable pollinator habitat. Along with new habitat, pollinators need protection from pesticides. Thoughtful pest management efforts work to reduce pesticide use and mitigate risks when pesticides are used. Such efforts can enhance the value of pollinator habitat and serve communities, offering a variety of benefits such as keeping children safe and protecting water quality. Using an approach known as integrated pest management (IPM) is one way to meet these goals.

IPM emphasizes prevention first and seeks to eliminate the underlying causes of plant diseases, weeds, and insect problems rather than relying on routine use of pesticides. Practitioners discourage pests through techniques such as modifying irrigation, amending soil, or preventing weeds from setting seed. Pesticides are available if other methods fail to keep pests at acceptable levels, and any applications focus on minimizing unintended consequences, such as harm to people and pollinators.

As a manager of municipal property, campus, or other urban landscape, when you make the decision to support pollinators, you should strive to incorporate IPM practices in your work. Consider adopting these time-tested elements:

- **Know Your Pests**: Identify and monitor for pests in your area to make informed decisions about if and when management is needed. Knowing a pest's life cycle also helps determine the best management method. Consult your state cooperative extension service or other knowledgeable local sources to identify pests.
- **Emphasize Nonchemical Methods**: Move away from chemical controls and toward methods that prevent plant diseases, weeds, and problematic insects. For example, consider replacing plants prone to disease or infestations with tougher, low-maintenance choices. Also, incorporate diverse floral plantings, which can encourage natural enemies and help resolve pest issues. Effective nonchemical techniques are available from a variety of sources, including local governments practicing pollinator-friendly pest management.

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- **Reduce or Eliminate Cosmetic Pesticide Use**: Much urban pesticide use is cosmetic—used to keep an area looking nice. But striving for a highly manicured aesthetic can be harmful, elevating use of herbicides, fungicides, and insecticides. Accept a few weeds and minor plant damage, which don't impact the overall beauty of an area. This can be a valuable step toward limiting pesticide contamination.
- **Transition Away from Hazardous Chemicals**: Some chemicals pose a high risk to pollinators or people. Neonicotinoids, for example, are very toxic to beneficial insects, including pollinators. They are also known to contaminate rivers and streams. Tebuconazole, a fungicide used in turf maintenance, is classified by the US Environmental Protection Agency as a possible human carcinogen and has been linked with harm to pollinators. To minimize risk, develop and maintain an approved list of least-toxic pesticides. Some municipalities prioritize organic pesticides. Alternatively, you can develop and maintain a list of prohibited chemicals.
- **Minimize Pesticides in Sensitive Places**: Designate pollinator plantings, areas regularly frequented by children or pets, and other sensitive sites as off-limits to pesticides.
- **Notify the Public about Applications**: Provide notice when applying pesticides, with signs posted at the application site at least 72 hours in advance and for at least 48 hours after an application. It is also a good practice to post planned applications at a phone hotline or website.
- **Develop an IPM Policy**: Create a written policy formalizing your entity's commitment to IPM. More detailed plans or operations manuals are also helpful, providing clear guidance to staff and contractors. Together, these documents create a common understanding of what's acceptable and what's not, and they are foundational for building strong IPM programs.
- **Articulate Goals**: Help define the purpose of an IPM program with clearly articulated goals. Difficult decisions may be necessary in the future, and shared goals serve as a touchstone and reminder of values and priorities. Goals should focus on desired benefits, such as increased pollinator safety, improved water quality, support for biodiversity, and protection of human health.
- **Establish Administrative Supports**: Staff or contractors who conduct grounds maintenance need to be committed to and trained in IPM procedures and techniques. Train staff in pest and natural enemy identification, nonchemical suppression strategies, pesticide safety, and pollinator conservation. For cities or larger organizations, designating an IPM coordinator or establishing an IPM team provides ongoing leadership and keeps the IPM intent alive.
- **Identify Allowable Exceptions**: Sometimes a health emergency or rapidly spreading invasive pest may precipitate pesticide use beyond the general guidelines of an IPM policy. Work out your procedures and criteria for exceptions in advance, have a clear approval process, and involve the public.
- **Develop and Review IPM Programs Collaboratively**: For lasting impact, involve staff and site users or residents, especially if the property is public or has common spaces. Sharing information is key to maintaining trust.

Developing a pollinator-friendly pest management program takes work, but the payoff is worth the effort. You'll be creating a healthier community where pollinator populations can flourish.

Example IPM Policies and Programs

City of Boulder, Colorado, Integrated Pest Management Program: https://bouldercolorado.gov/ipm

City of Davis, California, Integrated Pest Management: https://www.cityofdavis.org/city-hall/public-works-utilities-and-operations/integrated-pest-management

City of Talent, Oregon, Integrated Pest Management Policy: http://www.cityoftalent.org/SIB/files/IPM%20Policy%20final%2012_05_18.pdf

San Francisco Department of Environment, Pest Management for City Departments: https://sfenvironment.org/pest-management-for-city-departments

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