

# Pest Management and Pesticides

The city of Clearwater Parks & Recreation Department maintains more than 1,774 acres of parkland, including 109 parks, 51 athletic facilities, six miles of beach, a cemetery and other recreational facilities. They are dedicated to managing pests effectively while preserving public green spaces and ensuring public safety through integrated pest management

([https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-](https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles#:~:text=For%20more%20information,What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.)

[principles#:~:text=For%20more%20information,](https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles#:~:text=For%20more%20information,What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.)

[What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.](https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles#:~:text=For%20more%20information,What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.)) principles.



## Integrated Pest Management & Integrated Vegetation Management

Integrated pest management plan ([https://www.epa.gov/safepestcontrol/integrated-pest-](https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles#:~:text=For%20more%20information,What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.)

[management-ipm-](https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles#:~:text=For%20more%20information,What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.)  
[principles#:~:text=For%20more%20information,-,What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.](https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles#:~:text=For%20more%20information,What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.)) (IPM) was adapted as part of the city's sustainability plan, Greenprint 2.0

(<https://www.myclearwater.com/Sustainability-Greenprint-2.0>). Integrated pest management

([https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-](https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles#:~:text=For%20more%20information,What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.)

[principles#:~:text=For%20more%20information,-,What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.](https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles#:~:text=For%20more%20information,What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.)) is an effective and environmentally sensitive approach to managing

problematic insects and invasive species (<https://www.myclearwater.com/Glossary/Invasive-Species>) that relies on a combination of common-sense practices and science. We prioritize responsible pesticide use to protect public health and our valuable natural resources.

## Management of Exotic/Invasives

1. Prevention: Cleaning vehicles and equipment between sites, removing weeds before seed set
2. Cultural/Sanitation: Mulch and other weed barriers
3. Physical/Mechanical: Hard pulling, line trimming, vegetation harvester
4. Biological: Animal grazing, beneficial insects

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## 5. Chemical: Herbicides, selective and non-selective

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### **Responsible Application**

The first goal of pest management is to prevent the introduction and spread of pests. For example, actions such as removing unnecessary standing water to prevent the attraction of mosquitos.

Clearwater Parks & Beautification staff are certified and adhere to guidelines set by integrated pest management (<https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles#:~:text=For%20more%20information-,What%20is%20IPM%3F,their%20interaction%20with%20the%20environment.>) and integrated vegetation management. Staff routinely inspects Clearwater park's soil, foliage coloring, temperature, grass, trees, flowerbeds and shrubs to determine if the use of pesticides are necessary. Staff also must participate in continuing education to remain certified.

Only employees with a valid Limited Lawn and Ornamental applicators license issued by FDACS are allowed to handle, mix, or apply any herbicide or pesticide. Any city of Clearwater employee applying herbicide or pesticide must utilize that chemical following all instructions on the approved product label. The label is the law. For additional information on herbicide applications and alternatives, employees must consult the Pinellas County Integrated Vegetation Management Manual.

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### **Invasive Plant Species**

Some of the invasive species found in Clearwater are crabgrass, clover, dandelion, dollarweed, goosegrass, sedges, spurge, thistle, brazilian pepper, torpedo grass, air-potato, carrotwood, ceaser's weed, cogon grass and sand spurs.

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### **Invasive Pests**

Some of the invasive pests that staff looks for are aphids, chinch bugs, fire ants, mole cricket, Japanese beetles, love bugs, mealy bugs, oleander caterpillars, snails, spider mites, spittle bugs, thrips, white grubs and white flies.

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### **Use of Pesticides**

Pesticides in Clearwater parks are used sparingly and only when necessary to control invasive pests. Pesticides are not used in playgrounds or dog parks.

## **Pre-Emergence**

Pre-emergent herbicides block invasive plant species seeds from germinating before they become visible on park turf. Some of the herbicide solutions Clearwater Parks & Recreation uses:

- Dimesion 2EW
- Ronstar (liquid)
- Pendulum Aquneap
- Snapshot
- Sortlan

## **Post-Emergent**

Post-Emergence herbicides are used to treat invasive species that have already grown out of the ground and are visible. Some of the post-emergent herbicides Clearwater Parks & Recreation staff uses are:

- Garlon 4 Ultra
- Reward
- Round-up Pro Max
- Element 4
- Dismiss South
- Fulisade II
- Intage
- Cermanny
- Drive
- Plateau
- Solitare
- Octune
- Celsius WG

# **Insecticides**

Insecticides are used to remove invasive insects. Some of the insecticides Clearwater Parks & Recreation staff use are:

- Advlion
- Arena 50 WDG
- Aloft LCG
- Conserve SC
- Cross Check
- Merit
- Safori
- Talstar One/Talstar EZ
- Top Choice

# **Fungicides**

Fungicides are used to remove parasitic fungi and their spores. Clearwater Parks & Recreation staff use the following fungicides:

- Banrot
- Doconil
- Heritage or Disarm
- Mancozeb
- Subdue Maxx
- Zyban

# **Plant Growth Regulators**

Clearwater Parks & Recreation uses Plant Growth Regulator (PGR) to modify plant growth such as increasing branching, suppressing shoot growth, increasing return bloom or removing excess fruit. Some of the plant growth regulators used in Clearwater parks are:

- Atrimec
- Cotless
- Prino Maxx

## Additives

Additives are substances added to the use of pesticides to enhance their effectiveness. Some of the additives used in Clearwater parks are:

- Chelated Iron
- Crop Oil
- Drift Retardant
- Suretant
- Trucker Dye
- Spreadler Sticker

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## Chemical Usage

**March 2024**

Chemical	Amount	Unit
8-0-12	75	lbs
Spreadler Stick	37.5	oz
Triple Crown	35	oz
Roundup	30	oz
Glyphosate	309	oz
Dimension 18-0-10	9.2	lbs
Kerb	543	oz
Prosecuter	225	oz
Surepcy	64	oz
Top Choice	175	lbs
Snap shot	75	lbs
Taurus Trio G	10	lbs

<b>Chelated Palm Mirco Mix</b>	<b>896</b>	<b>oz</b>
<b>Surfactant</b>	<b>104</b>	<b>oz</b>
<b>Micro Palm Package</b>	<b>512</b>	<b>oz</b>
<b>20-0-10</b>	<b>1050</b>	<b>lbs</b>
<b>DLZ</b>	<b>15</b>	
<b>Promadine</b>	<b>2.75</b>	<b>lbs</b>

For more detailed information, please feel free to contact us at (727) 562-4800 (tel:7275624800). Clearwater remains committed to balancing recreational needs with environmental stewardship through responsible pest management practices.

## **Related Information**

[Florida Invasive Species Council List of Invasive Plant Species](https://floridainvasivespecies.org/plantlist.cfm)

(<https://floridainvasivespecies.org/plantlist.cfm>)

[UF IFAS Extension \(https://edis.ifas.ufl.edu/topics/pesticides\)](https://edis.ifas.ufl.edu/topics/pesticides)