

Plant Finder User Guide

Expanding on its small sample of recommended plants in previous versions of the Street Design Manual, DOT is now introducing the **Plant Finder** tool, offering a broadened database of plants that have been successfully used within the public right-of-way.

Beginning your search

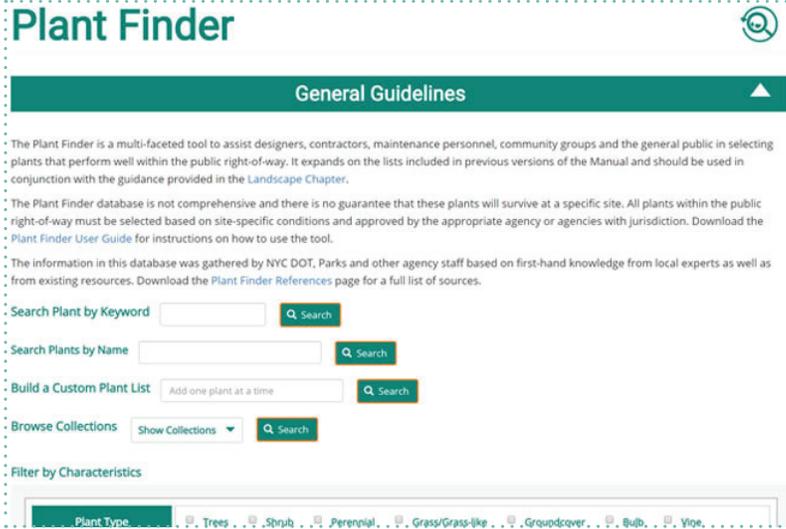


Image 01

There are 5 ways you can search for a plant:

- 1) **By Keyword:** A good starting point if you are new to the Plant Finder and want a broad selection of plants;
- 2) **By Name:** if you know exactly what you are looking for;
- 3) **Build a Custom Plant List:** to compare plants or compose a plant list;
- 4) **Browsing Collections:** to find recommended plants that have been pre-organized into categories;
- 5) **Filter by Characteristics:** an advanced search in case you are looking for plants according to specific attributes.

Searching plants by keyword

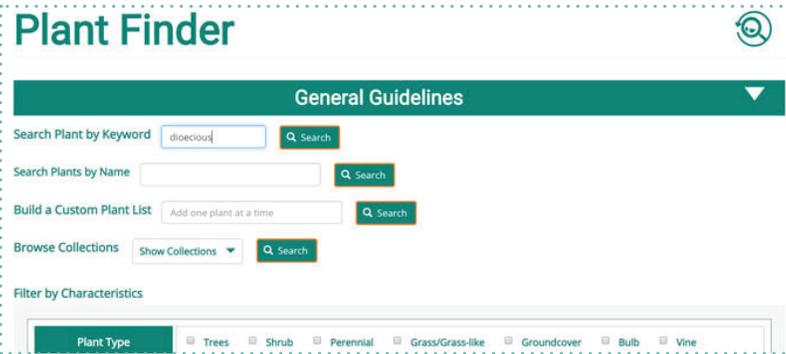


Image 02

1. The broadest search. Type in any plant name or partial name or characteristic (e.g. dioecious, purple, glossy, etc.) (image 02).

2. Click on **Search**.

Tip
» If you keep all search fields empty and click any **Search** button, the results will show every plant in the database.

Searching plants by name

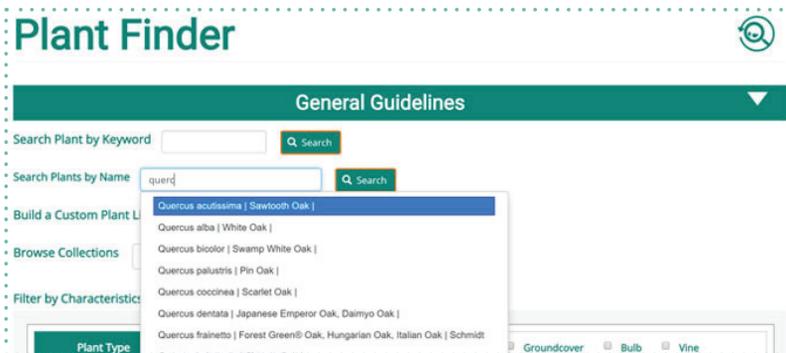


Image 03

1. Type in part of or the full name of a plant. You can use either its common name or scientific name. As you type, a drop down will appear where you can also click on a specific plant to search for that selection (image 03).

2. Click on **Search**.

Building a Custom Plant List

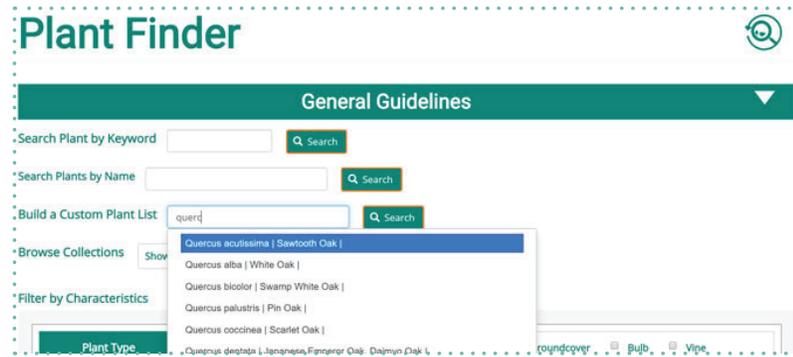


Image 04

1. Similar to the "Search Plants by Name" feature, type in part of or the full name of a plant. You can use either its common name or scientific name (image 04).

2. Click on **Search**.

Tip
» You can click **Search** after typing only a portion of the plant name to broaden your potential results.

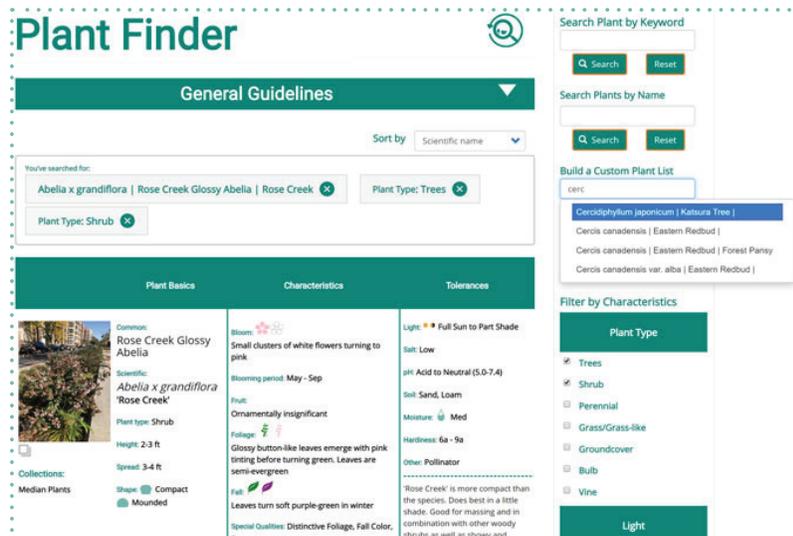


Image 05

3. To add plants to your list, type in a new plant name in the Build a Custom Plant List search box on the right (image 05).

4. Click on **Add Plant**.

5. The plants you've searched for will show up in the box atop the results. You can also **filter** this list using the "Filter by Characteristics" feature. Click on any feature (e.g. Light) and select an attribute.

6. Click any of the **Search** buttons and your custom list will filter via the selected attribute.

Browsing Plant Collections

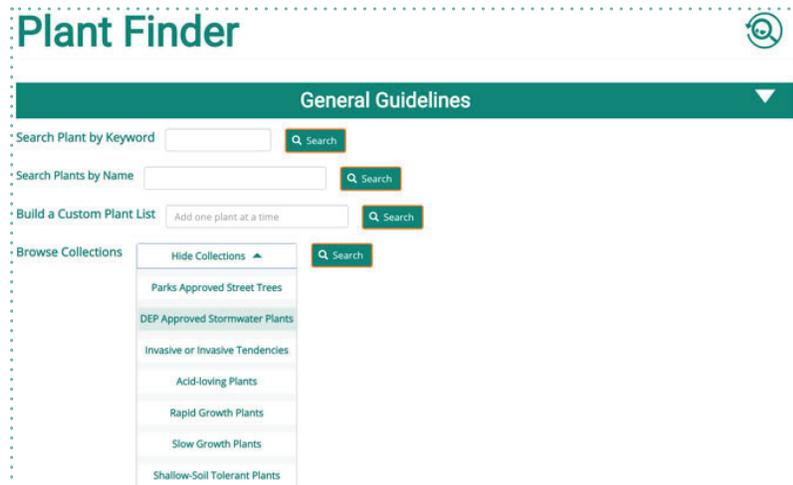


Image 06

1. Click on Button "**Show Collections**" next to "**Browse Collections**" to load the list.

2. Choose a category and then click on **Search**. You can select multiple categories. The results will display plants that are in category 1 **or** category 2 **or** category 3, etc. (image 06).

3. All of the plants that belong to the selected collection will show up in the results. Some of the collections are still under review and might not load any results. Some collections are linked to outside sources (i.e. DPR and DEP approved lists).

Filtering Plants by Characteristics

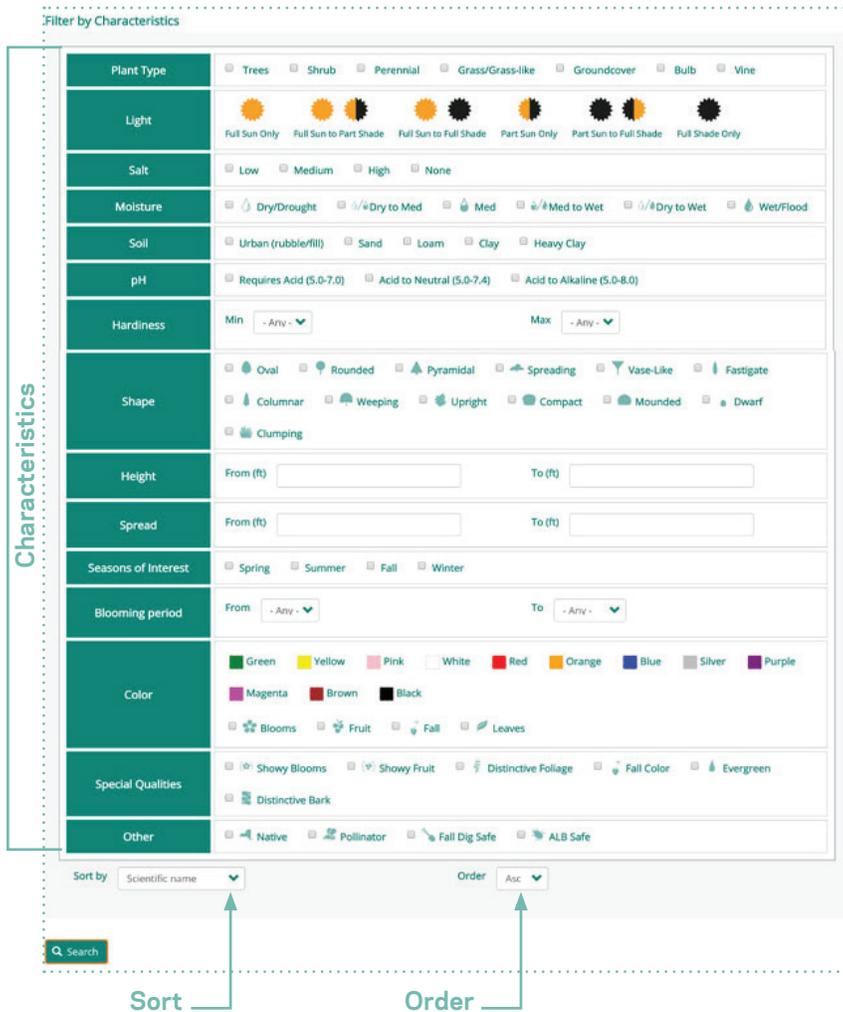


Image 07

If you are looking for a plant with specific features, the Plant Finder also comes with an advanced research tool to filter all the plants according to particular attributes (image 07).

- You can choose more than one option for most categories. The results will load all the plants that have X feature **or** Y feature within that characteristic.

Example: If you choose "Full Sun Only" and "Full Sun to Full Shade" for **Light**, you will get all of the results that are either "Full Sun Only" or "Full Sun to Full Shade".

- When choosing features within different categories, the results will show all the plants that have X feature **and** Y feature.

Example: If you choose "Full Sun Only" for **Light**, "Med" for **Moisture** and "Showy Blooms" for **Special Qualities**, the search will retrieve only the plants that are Full Sun Only **and** have Medium Moisture **and** have Showy Blooms.

- Salt, Moisture, Soil and pH:** if the tolerance features are unknown for a specific plant, they will be returned in the results even if you selected a specific value for that feature.

Tips

- » Clicking on any of the **Search** buttons will retrieve results.
- » Clicking on the **Plant Finder icon**  takes you back to the main page.
- » You don't have to come back to the main page all the time. You can redo your search in the results page as well.
- » The more specific you get, the fewer results you retrieve.

- If you want to select a color, you need to be specific if you mean **Bloom** color, **Fruit** color, **Fall** color, or **Foliage** color and select the desired color(s). The color result will show up in the form of the icon correspondent to each.

Ex: **Bloom:** 

- After you select all of your desired traits, click on **Search**.
- You can also choose how you want the results to be sorted and in what order they should be displayed, choosing from **Sort By** (Scientific Name, Common Name, Height, Spread, Light, Salt Tolerant, Moisture Tolerant, pH Tolerant, Hardiness Zone and Level of Maintenance) and **Order** (descendant and ascendant) buttons at the end of the page.

Plant Results

Plant Finder

General Guidelines

1 2 » Last » Sort by Scientific name

You've searched for:
 Light: Full Sun to Part Shade X Salt: Medium X Other: Pollinator X

Plant Basics	Characteristics	Tolerances
 Common: Shrubby Cinquefoil Scientific: <i>Potentilla fruticosa</i> 'Coronation Triumph' Plant type: Shrub Height: 2-4 ft Spread: 3-5 ft Shape: Rounded, Mounded	Bloom: Yellow, buttercup flowers; about 1" to 1.5" in diameter. Blooming period: Jun - Sep Fruit: Dry, brown achene. Foliage: Compound, pinnate leaflets are elliptic and linear; 3 to 7 leaflets per leaf. Fall: Special Qualities: Showy Blooms Level of Maintenance: Low Season of Interest: Spring, Summer, Fall	Light: Full Sun to Part Shade Salt: Medium pH: Acid to Alkaline (5.0-8.0) Soil: Urban (rubble/fill), Sand, Loam, Clay Moisture: Med Hardiness: 3a - 7a Other: Native, Pollinator 'Coronation Triumph' is noted for its early and profuse bloom of bright yellow flowers in late spring.
 Common: Flowering Plum Scientific: <i>Prunus</i> Plant type: Shrub Height: 2-4 ft Spread: 3-5 ft Shape: Upright	Bloom: Mildly fragrant, double purplish-pink flowers Blooming period: May - Nov Fruit: Pea-sized orange-red hips Foliage: Dark purplish-green leaves are composed of 5-9 broad-elliptic, finely-toothed, leaflets (to 2.5" long) Fall: Leaves turn purple to burgundy in fall Bark: Smooth, brown bark with some thorns Special Qualities: Showy Blooms, Showy Fruit, Distinctive Foliage Level of Maintenance: Medium Season of Interest: Spring, Summer, Fall	Light: Full Sun to Part Shade Salt: Medium pH: Acid to Alkaline (5.0-8.0) Soil: Loam Moisture: Med Hardiness: 5a - 9a 'Radrazz' is known for its cherry-red roses that bloom consistently from May to frost. Long-blooming. Do not deadhead; cut back in the spring. DEP Residential Plan 1.

Image o8

Plant Finder

General Guidelines

1 2 » Last » Sort by Scientific name

You've searched for:
 Light: Full Sun to Part Shade X Salt: Medium X Other: Pollinator X

Plant Basics	Characteristics	Tolerances
 Common: Knock Out® Rose Scientific: <i>Rosa</i> 'Radrazz' Plant type: Shrub Height: 3-4 ft Spread: 3-4 ft Shape: Upright Collections: DEP Approved Stormwater Plants, Median Plants	Bloom: Single, lightly fragrant, cherry-red roses (to 3.5" wide) bloom in clusters Blooming period: May - Nov Fruit: Pea-sized orange-red hips Foliage: Dark purplish-green leaves are composed of 5-9 broad-elliptic, finely-toothed, leaflets (to 2.5" long) Fall: Leaves turn purple to burgundy in fall Bark: Smooth, brown bark with some thorns Special Qualities: Showy Blooms, Showy Fruit, Distinctive Foliage Level of Maintenance: Medium Season of Interest: Spring, Summer, Fall	Light: Full Sun to Part Shade Salt: Medium pH: Acid to Alkaline (5.0-8.0) Soil: Loam Moisture: Med Hardiness: 5a - 9a 'Radrazz' is known for its cherry-red roses that bloom consistently from May to frost. Long-blooming. Do not deadhead; cut back in the spring. DEP Residential Plan 1.

Download CSV

Click on the image to enlarge

Download results

Image o9

Once you click on **Search**, your results should load as the image on the left (image o8).

- You can navigate through the results and **Sort** them by the characteristic you desire.
- The categories you've searched for will also appear if you searched using **Filter by Characteristics**.
- To make changes or reset your search, you can use the bar on the right, which functions exactly like the main search page.
- You can also download your results into an Excel spreadsheet by scrolling to the end of the page and clicking on **Download Results** (image o9).

Each plant entry is divided up into three main categories: **Plant Basics**, **Characteristics**, and **Tolerances**.

- Plant Basics provide the **Scientific Name**, **Common Name**, **Plant Type**, **Height**, **Spread**, and **Shape**. This is also where you will see the plant image and what collections it belongs to.
- Click on an image to enlarge it (image 10). Many of the plants don't have images yet and instead will display an icon.

Plant Finder

General Guidelines

1 2 » Last » Sort by Scientific name

You've searched for:
 Light: Full Sun to Part Shade X Salt: Medium X Other: Pollinator X

Plant Basics	Characteristics	Tolerances
 Common: Knock Out® Rose Scientific: <i>Rosa</i> 'Radrazz' Plant type: Shrub Height: 3-4 ft Spread: 3-4 ft Shape: Upright Collections: DEP Approved Stormwater Plants, Median Plants	Bloom: Single, lightly fragrant, cherry-red roses (to 3.5" wide) bloom in clusters Blooming period: May - Nov Fruit: Pea-sized orange-red hips Foliage: Dark purplish-green leaves are composed of 5-9 broad-elliptic, finely-toothed, leaflets (to 2.5" long) Fall: Leaves turn purple to burgundy in fall Bark: Smooth, brown bark with some thorns Special Qualities: Showy Blooms, Showy Fruit, Distinctive Foliage Level of Maintenance: Medium Season of Interest: Spring, Summer, Fall	Light: Full Sun to Part Shade Salt: Medium pH: Acid to Alkaline (5.0-8.0) Soil: Loam Moisture: Med Hardiness: 5a - 9a 'Radrazz' is known for its cherry-red roses that bloom consistently from May to frost. Long-blooming. Do not deadhead; cut back in the spring. DEP Residential Plan 1.

Image 10

Plant Results

Plant Basics	Characteristics	Tolerances
 <p>Common: Rose Creek Glossy Abelia</p> <p>Scientific: <i>Abelia x grandiflora</i> 'Rose Creek'</p> <p>Plant type: Shrub</p> <p>Height: 2-3 ft</p> <p>Spread: 3-4 ft</p> <p>Collections: Median Plants</p> <p>Shape: Compact, Mounded</p>	<p>Bloom:  Small clusters of white flowers turning to pink</p> <p>Blooming period: May - Sep</p> <p>Fruit: Ornamentally insignificant</p> <p>Foliage:  Glossy button-like leaves emerge with pink tinting before turning green. Leaves are semi-evergreen</p> <p>Fall:  Leaves turn soft purple-green in winter</p> <p>Special Qualities: Distinctive Foliage, Fall Color, Evergreen</p> <p>Level of Maintenance: Medium</p> <p>Season of Interest: Spring, Summer, Fall, Winter</p>	<p>Light:  Full Sun to Part Shade</p> <p>Salt: Low</p> <p>pH: Acid to Neutral (5.0-7.4)</p> <p>Soil: Sand, Loam</p> <p>Moisture:  Med</p> <p>Hardiness: 6a - 9a</p> <p>Other: Pollinator</p> <p><small>'Rose Creek' is more compact than the species. Does best in a little shade. Good for massing and in combination with other woody shrubs as well as showy and textured plants.</small></p> <p><small>Requires steady moisture during establishment.</small></p>
 <p>Common: John Creech Glossy Abelia</p> <p>Scientific: <i>Abelia x grandiflora</i> 'John Creech'</p> <p>Plant type: Shrub</p> <p>Height: 3-6 ft</p> <p>Spread: 3-6 ft</p> <p>Shape: Spreading, Mounded</p> <p>Collections: Median Plants</p>	<p>Bloom:  Small clusters of white flowers. Blooms are lightly fragrant, but not very showy</p> <p>Blooming period: May - Sep</p> <p>Fruit: Ornamentally insignificant</p> <p>Foliage:  Glossy leaves are semi-evergreen and may persist depending on winter temperatures</p> <p>Fall:  Leaves turn from green to a mixture of purple and bronze that last into winter</p> <p>Special Qualities: Distinctive Foliage, Fall Color, Evergreen</p> <p>Level of Maintenance: Medium</p> <p>Season of Interest: Spring, Summer, Fall, Winter</p>	<p>Light:  Full Sun to Part Shade</p> <p>Salt: Low</p> <p>pH: Acid to Neutral (5.0-7.4)</p> <p>Soil: Sand, Loam, Clay</p> <p>Moisture:  Med</p> <p>Hardiness: 6a - 9b</p> <p>Other: Pollinator</p> <p><small>'John Creech' is a slightly bigger cultivar.</small></p> <p><small>Requires steady moisture during establishment. Slightly salt tolerant.</small></p>
 <p>Common: White Fir</p> <p>Scientific: <i>Abies concolor</i></p> <p>Plant type: Trees</p> <p>Height: 50-80 ft</p> <p>Spread: 15-30 ft</p> <p>Shape: Pyramidal</p>	<p>Bloom:  Species does not flower</p> <p>Fruit:  Barrel-shaped cones are often yellowish-green maturing to brown or purple. Cones appear upright on the branches</p> <p>Foliage:  Conifer with stunning blue needles</p> <p>Fall:  No significant change in fall color</p> <p>Special Qualities: Showy Fruit, Distinctive Foliage, Evergreen</p> <p>Level of Maintenance: Medium</p> <p>Season of Interest: Spring, Summer, Fall, Winter</p>	<p>Light:  Full Sun to Part Shade</p> <p>Salt: Low</p> <p>pH: Acid to Neutral (5.0-7.4)</p> <p>Soil: Urban (rubble/fill), Sand, Loam</p> <p>Moisture:  Dry to Med</p> <p>Hardiness: 4a - 7b</p> <p><small>Spectacular blue conifer that shows best in full sun. Great in combination with contrasting shrubs and ornamental grasses. Make sure to provide space around this plant for air circulation.</small></p> <p><small>More heat & drought tolerant than most firs. Casts dense shade, which may hinder undergrowth.</small></p>
 <p>Common: Korean Fir</p> <p>Scientific: <i>Abies koreana</i></p> <p>Plant type: Trees</p> <p>Height: 15-30 ft</p> <p>Spread: 6-12 ft</p> <p>Shape: Pyramidal, Compact</p>	<p>Bloom:  Species does not flower</p> <p>Fruit:  Purple cones (3" long) appear upright on the branches and generally in clusters</p> <p>Foliage:  Shiny dark green needles with bright white-silver undersides. Fragrant</p> <p>Fall:  No significant change in fall color</p> <p>Special Qualities: Showy Fruit, Distinctive Foliage, Evergreen</p> <p>Level of Maintenance: Medium</p>	<p>Light:  Full Sun to Part Shade</p> <p>Salt: Unknown</p> <p>pH: Acid to Neutral (5.0-7.4)</p> <p>Soil: Loam</p> <p>Moisture:  Med</p> <p>Hardiness: 4b - 7b</p> <p>Other: Fall Dig Safe</p> <p><small>May struggle in hot summers, although more heat tolerant than other firs; generally prefers a cool moist environment. Not tolerant of</small></p>

Characteristics cover the ornamental qualities of the plant including descriptions of the plant's **Bloom, Fruit, Foliage, Fall Color**, and **Bark** (when applicable). **Special Qualities**, the **Season of Interest** for the plant, and the **Level of Maintenance** required are also provided.

■ **Color**



The **Bloom, Fruit, Foliage**, and **Fall** categories will generally display a colored icon or icons next to the header. The text beneath provides a more nuanced description of the feature, but the colored icons are used by the search engine to return values when searching by color.

■ **Special Qualities**

Each entry will typically describe the bloom, fruit, foliage, etc. However, this section highlights which of those qualities are a signature ornamental feature of the plant.

■ **Level of Maintenance**

Knowing the maintenance required to care for a plant is a key consideration. The following table explains the values you will see returned in the search results.

Value	Description
Low	Requires little to no care following establishment
Medium	Requires additional care following establishment and may produce litter (spent flowers, fruit, or leaves). Additional care will improve ornamental features, but is not essential
High	Requires additional and regular care following establishment. Plant may struggle to survive without care and requires specific attention to maintain the ornamental features

Image 11

Plant Results

Tolerances help determine the growing conditions in which the plant can thrive. Information is provided for **Light, Salt, pH, Soil, Moisture, and Hardiness**. This section will indicate if the plant is **Native**, a **Pollinator**, a **Fall Dig Hazard**, or an **ALB Host**. **Invasive Status** for those plants the demonstrate some type of documented invasiveness in the NYC region is also covered.

- In addition to tolerances, a horticultural note is provided below the dashed line. This note covers unique or important features of the plant and is generally written by a local NYC expert. (image 12)
- The following tables describe the criteria used to determine the values for each tolerance, except Hardiness. Hardiness is described pursuant to the USDA Hardiness Zone Map (<https://planthardiness.ars.usda.gov/PHZMWeb/#>).

Common: Knock Out® Rose
Scientific: Rosa 'Radrazz'
Plant type: Shrub
Height: 3-4 ft.
Spread: 3-4 ft.
Shape: Upright

Bloom: Single, lightly fragrant, cherry-red roses (to 3.5" wide) bloom in clusters
Blooming period: May - Nov
Fruit: Pea-sized orange-red hips
Foliage: Dark, purplish-green leaves are composed of 5-9 broad-elliptic, finely-toothed, leaflets (to 2.5" long)
Fall: Leaves turn purple to burgundy in fall
Bark: Smooth, brown bark with some thorns
Special Qualities: Showy Blooms, Showy Fruit, Distinctive Foliage
Level of Maintenance: Medium
Season of Interest: Spring, Summer, Fall

Light: Full Sun to Part Shade
Salt: Medium
pH: Acid to Alkaline (5.0-8.0)
Soil: Loam
Moisture: Med
Hardiness: 5a - 9a

Horticultural note: "Radrazz" is known for its cherry-red roses that bloom consistently from May to frost. Long-blooming. Do not deadhead; cut back in the spring. DEP Residential Plan 1.

Image 12

Horticultural note

- Light:** This characteristic describes the plants ability to tolerate varying levels of light.

Value	Description
Full Sun Only	Can tolerate unlimited number of hours of sun each day (8+ hours)
Full Sun to Part Shade	Tolerates more sun, but requires protection from intense mid-day sun (3-6 hours)
Full Sun to Full Shade	Can tolerate varying amounts of sun exposure (3-6 hours)
Part Sun Only	Cannot tolerate direct sunlight; grows best in filtered light
Part Sun to Full Shade	Sensitive to direct sunlight; needs shade during the hottest part of the day (<4 hours)
Full Shade Only	Plant should not be exposed to any direct sunlight (< 3 hours of dappled or filtered sunlight)

- Salt:** Salt tolerance is a critical factor when selecting plants in the right-of-way. It is often difficult to find reliable information though.

Value	Description
None	Not tolerant to salt water inundation or salt spray
Low	Can tolerate minimal exposure to salt spray and intolerant to salt water inundation
Medium	Tolerant of salt spray and occasional inundation of salt water (good for ROW)
High	Extremely tolerant of salt spray or being flooded with salt water either daily or occasionally
Unknown	Current research is not available to determine tolerance to salt

- pH:** A slightly acidic pH offers the most suitable growing environment to plants. However, high-pH tolerant plants are particularly desirable in NYC's built environment.

Value	Description
Requires Acid	pH range of 5.0-7.0, inclusive
Acid to Neutral	pH range of 5.0 to 7.4, inclusive
Acid to Alkaline	5.0 to 8.0, inclusive.

- Soil:** Soil is fundamental to the successful growth of plants. This characteristic describes the types of soil the plant can grow in.

Value	Description
Urban (rubble/fill)	Soil may contain rubble or trash; May be contaminated
Sand	Composed of irregular to rounded tiny grains of sand; drains very quickly
Loam	Composed of equal parts sand and silt with a smaller amount of clay; ideal plant growing medium
Clay	Composed of very fine mineral particles; does not drain well
Heavy Clay	Composed of very fine mineral particles; can easily become compacted; difficult growing condition

Plant Results

- **Moisture:** This characteristic describes the plants ability to tolerate varying levels of water.

Value	Description
Dry/Drought	Once established, plants can handle severe drought on a regular basis and will recover from repeated wilting
Dry to Med	Once established, will need little supplemental water, but can tolerate moist conditions
Med	Prefers soil be consistently moist and well-drained
Med to Wet	Can tolerate occasional inundation, but prefers its feet to be dry
Dry to Wet	Tolerates a wide-range of soil moisture conditions from occasional periods of drought to periodic inundation
Wet/Flood	Needs soil that is constantly moist to wet

- **Other:** Other key plant characteristics are provided.

Value	Description
Native	Plant is indigenous and has developed naturally (without human introduction) to the New York State region
Pollinator	Plant is highly attractive to pollinators such as native bees, honey bees, butterflies, moths, and hummingbirds
Fall Dig Safe or Hazard	Primarily applies to ball and burlap (B&B) trees. Trees noted as Fall Dig Safe can be transplanted in the fall. Avoid transplanting Fall Dig Hazard plants in the fall
ALB Host	Preferred host species of the Asian Longhorned Beetle (ALB)

- **Invasive Status:** The following values are used to describe the plants invasive qualities. This value will only display if a plant has some level of invasive tendencies in the NY-Metro region.

Value	Description
Has Invasive Tendencies	Known to spread quickly/colonize area (e.g. shoots/suckers, profuse seed producer, etc.)
Emerging or Reported Invasive (Locally)	Reports of invasive tendencies in New York City (Five Boroughs)
Naturalized Invasive	Species has adapted to local environment and may out compete native populations
Regionally Invasive	Reports of invasive species in New York-Metropolitan region (New Jersey, Connecticut, and Pennsylvania)
NYS Listed Invasive Species (Regulated)	Species cannot be knowingly introduced into a free-living state, or introduced by a means that one should have known would lead to such an introduction, although such species shall be legal to possess, sell, buy, propagate and transport
NYS Listed Invasive Species (Prohibited)	Species cannot be knowingly possessed with the intent to sell, import, purchase, transport or introduce