



# Cornell University Cooperative Extension Niagara County

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## Weeds As Indicators

*Environment,  
Gardening  
&  
Land Use*

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“Weed” has many meanings, and definitions vary according to the speaker and his/her values. However, weeds do have some objective, consistent “meanings”. They tell us specific information about our sites and soil. The following are some conditions and the weeds that give us clues:

#### **DRY**

Oxalis, crab, speedwell, spurge, goosegrass, and clover

#### **WET/BAD DRAINAGE**

Nutsedge, bentgrass, plantain and red sorrel

#### **SURFACE WET**

Algae, moss, bentgrass and annual blue grass

#### **LOW MOW HEIGHT**

Annual blue grass, chickweed, speedwell, bentgrass, and hawkweed

#### **LOW pH**

Red sorrel, clover, hawkweed, and dandelions

#### **LOW N**

Clover, black medic, spurge and purslane

#### **COMPACTION**

Knotweed, goosegrass, pineapple weed, speedwell, annual blue grass, plantain, spurge, crab and clover

#### **SHADE**

Chickweed, violets, ground ivy, speedwell  
JF

## ***Minimum Effort Ornamentals***

Low maintenance plantings are in vogue these days. As homeowners’ lives become more and more hectic, the desire to plant trees and shrubs that require minimal care is increased.

*Building Strong and Vibrant New York Communities*

Cornell Cooperative Extension in Niagara County provides equal program and employment opportunities.

Fortunately, there are many available ornamentals a huge pest complex does not trouble, and that do appear pleasing with little care. However, a little planning in advance is still necessary for developing an attractive planting that is likely to last for many years. Even the easiest-to-care-for ornamentals still have basic needs that must be met before they will thrive. Therefore, matching the site limitations or opportunities to the plants' requirements will go far toward achieving "low maintenance" status. Before you can make the best choice, you need to assess the site, both above and below ground.

The following information will help you assess the site before choosing the best plants for the location you have in mind. Examples of plants are given, but the resources at the end will provide you with more in-depth lists of recommended ornamentals.

#### **Below Ground Considerations Restricted**

**Rooting Space** – are there underground obstacles to consider? Do you see noticeable compaction near driveways and sidewalks? This potential restriction of the rooting zone very much limits the amount of water, nutrients, and oxygen available to the plants. The addition of organic matter will provide more suitable soil conditions for growing annuals and perennials. Drought tolerant trees such as Japanese Tree Lilac (*Syringa reticulata*) do reasonably well in compacted soils. However, since roots typically grow no deeper than three feet and can spread to two or three times beyond the dripline, a large space should be allowed before planting.

**Soil Texture** – What is the texture of your soil? Is it light, dry and sandy, or is it a heavy clay soil that tends to take a long time to drain? Perhaps you are fortunate and have a well-drained loamy soil. This important piece of information will help you to select ornamentals that are well adapted to your soil conditions. While some are tolerant of a wide range of conditions, others perform best in more specific locations. For example, the American Hornbill (*Carpinus caroliniana*) is a small tree worthy of plants, and although it will

tolerate some intermittent drought, it prefers moist, shaded soils.

**Soil pH** – The pH is a measure of how acid or alkaline the soil is; a simple pH test can determine your site's characteristics. Most urban soils have a high pH (nearer to neutral or more alkaline in nature) due to limestone containing materials in the street environment; rural and suburban soils vary greatly throughout the state. The Hedge Maple (*Acer campestre*), Thornless Hawthorn "Ohio Pioneer" (*Crataegus punctata inermis*) and Swedish Mountain Ash (*Sorbus intermedia*) are all examples of low maintenance small trees that will tolerate a high pH soil. Tallhedge (*Phamnus frangula*) is an upright shrub that will tolerate alkaline soil.

**Drainage** – Poor drainage due to compaction, underground obstacles, or the inherent nature of the soil can easily be determined before you make the wrong selection. Place an open ended coffee can where you want to plant; pour water in and observe the time it takes to drain. If the water has not drained in the area by using raised beds or supplemental drains, or choose species that can tolerate "wet feet". The London Planetree (*Plantamrs x acerifolia*) is an example of a tall (70-100 ft.) tree that can tolerate either wet or dry soil (*Astilbe species*) is a perennial that will tolerate moist sites.

**Road Salt** – Many homeowners are unpleasantly surprised to discover that some of their favorite roadside trees, such as the Sugar Maple (*Acer saccharum*) and Red Maple (*A. Rubrum*) are actually very sensitive to salt injury. On the other hand, Honey locust (*Gleditsia triacanthos*) and Callery Pear (*Pyrus calleryana*) can tolerate salt. In an area of high road salt or sidewalk salt applications, appropriate species can be planted to minimize damage later on.

#### **Above Ground Considerations USDA**

**Temperature Zones** – All trees chosen for your planting should be cold hardy. Areas near large lakes and oceans (e.g., the Finger Lakes, Ontario, Erie, Long Island) tend to be somewhat buffered from severe

temperatures, while urban environments often fluctuate more in temperature due to heat from buildings.

Buildings in cities often provide some shelter from drying winds; plants in containers are more susceptible to cold winter temperatures than those in the ground. If this seems confusing, a good rule of thumb is to choose plants that conform to your zone or lower (colder temperatures). There is a USDA zone map in the Recommended Urban Trees publication (Western New York is mostly considered Zone 5).

**Exposure** – Take a closer look at how much exposure to wind your site receives. Is it protected from winds? Excessively windy sites will often place stress on plants with large leaves, which leads to unsightly leaf tatter. Also, plants in these sites may need supplemental watering so they do not dry out as quickly. Hackberry (*Celtis occidentalis*) is a medium to large tree which is quite wind resistant.

Think about exposure to light as well. Shady sites determined by the sun and shade patterns around buildings, as well as nearby trees, may limit the choice of plants. Most trees and shrubs require full sun, but a few such as Katsura Tree (*Cercidiphyllum japonicum*) tolerate partial shade.

**Building Set – Back, Overhead Wires** – The presence of physical barriers to plant growth above ground, such as a narrow building set back from the street and/or overhead wires, requires the choice of a tree or shrub which will not interfere with these structures. Columnar trees or those with low mature heights (less than 30 feet) can be used in these situations. There are many small trees and shrubs to choose from; an example of a columnar tree is Princeton Sentry Ginkgo (*Ginkgo biloba*).

**Surface That Surround Buildings** – Concrete, asphalt, car tops, mirrored building surfaces, etc., increase the reflected and irradiated heat load on a tree, which can cause it to heat up and lose

water from its leaves at a faster rate than normal. Drought resistant plants should always be selected in those circumstances. A good example of a drought tolerant is the Yellow Chestnut Oak (*Quercus mehlengerii*). Coneflower (*Rudbeckia speciosa*) is a perennial that will tolerate dry, hot conditions. For publications, call your local Extension office.

Source: Dr. Nina Bessuk, Urban horticulture Institute, Marcia Eames-Sheavly, Dept. of Fruit & Vegetable Science, and Robert Kozolowski, Dept. of Floriculture & Ornamental Horticulture, Cornell University  
JF

## **Purchase of Development Rights Workshops**

American Farmland Trust and the Western New York land Conservancy are sponsoring two workshops for farmers, landowners, and local government officials interested in learning about how and why to place a conservation easement on agricultural land and the benefits to be derived by doing so. David Haight, New York Field Manager for American Farmland Trust, will address this topic, and local farmers and town government officials who have been involved in placing easements on agricultural land parcels, will share their experiences. Amy Holt, Western New York land Conservancy Executive Director, will discuss the land Conservancy's roles in past purchase of development rights projects. Both workshops are identical and are being offered in two locations at different times for the convenience of attendees. So, there is no need to attend both workshops. Please call Diane Held Phillips at 716-337-2254 for further information and to register for the workshops.

Workshop 2: Thursday, March 3, 2005  
7pm-9pm Amherst Museum, 3755  
Tonawanda Creek Road, Amherst. PL

## Students Choose Salad Over Pizza

Under pressure from decreased state and federal funding, many schools are discovering that providing a salad bar option to the standard pizza/corndog/burger hot lunch is more affordable, more nutritious, and more popular among students. With a cost of roughly 40 cents less per student, salad bar meals are growing in popularity and are now available at 10% of the nation's

schools. Districts are reporting that more students are choosing the salad bar over the hot lunch. Stocked with fresh fruits, vegetables, nuts, dairy and meats, the salad bar gives students the freedom of choice. "I always get salad bar because they have good stuff like oranges, pickles, yogurt," said 7-year old Oscar Sibrian of Frances Willard Elementary School in California. "And you can make up your own choice." Some schools are also sourcing their salad bar produce from local and organic farms. <http://www.organicconsumers.org/sos> PL

