

Plant Selection 1

Objective: to help the employee understand factors affecting plant selection.

Lesson: *Matching the right plant to the right place is one of the keys to creating a successful landscape. Some of the factors to consider when selecting plants include:*

HARDINESS

In our climate tolerance to cold is an important factor in plant selection. Agriculture Canada has created hardiness zones based on a number of climatic conditions including minimum winter temperature, frost-free days, summer rainfall, annual snow cover, elevation and other factors. Plants are assigned a rating in the hardiness zone where they are best suited. Use only plants with a zone rating equal to or less than the hardiness zone you are working in. A map and more information about plant hardiness zones can be found at: <http://sis.agr.gc.ca/cansis/nsdb/climate/hardiness/intro.html>. Note that plant zones in the United States do not correspond to hardiness zones in Canada.

MICROCLIMATE

Site conditions can vary even on a small site because of microclimates. The microclimate of an area is created by the physical characteristics such as walls, fences, large buildings and bodies of water that may slightly change the climate in a specific area. For example, an overhang may create a dry spot in the garden, or tall trees or

fences often create a protected area that can support more tender plants.

EXPOSURE

This refers to the prevalence of conditions such as sunlight, wind, water and salt. Certain plants do better in more sunlight and others in shade. It is important to know the shade and sun patterns of the site to help determine what plants to use. Some plants require little water and others require frequent watering. Salt tolerant plants should be selected for placement near the ocean or close to a street where they will be subject to salt spray during the winter.

SOILS

Soil conditions can vary greatly between different locations in the same area and even on the same site. It is very important to analyse the soil where you are planting. Soil texture affects how much oxygen, drainage and nutrients plant roots will receive. A loam soil that contains equal parts of clay, soil and silt (soil particles that are larger than clay and smaller than sand) is considered the best for plants. Clay soils drain poorly, but hold nutrients well, and can be improved by adding organic matter to improve drainage. Sandy soils can be improved with organic matter to slow quick drainage and help hold nutrients.

Soil pH refers to the acidity or alkalinity of the soil. pH of 7 is neutral, while lower pH is acidic and pH higher than 7 is alkaline. Soil pH has an effect on nutrient availability. Some plants are known as 'acid-loving' because they prefer an acidic pH. These include: rhododendrons, azaleas, oaks, heathers, daphne and Japanese pieris. Soil pH is difficult to change, so it is best to select plants that are naturally adapted to the pH of the indigenous soil.

- *In our climate tolerance to cold is an important factor in plant selection.*

- *Choosing the right plant for the right place is key to healthy plant growth.*

