

Autumn colour

As always, I look forward to autumn when Mother Nature really puts on a spectacular show in our landscape. This autumn is all the more special, as due to the lockdown, I go for many much-needed exercises walks while at the same time appreciate the autumn colour along the street cape and in private gardens. For me, Spring is the extrovert 'showing off' season, Summer is sea side holiday and ice cream, Winter the log fire and roast dinner, Autumn remains my favourite with its mellow weather, perfect for strolling in the streets and rambling walks through gardens.



Autumn foliage is a phenomenon that affects the normal green leaves of many deciduous trees and shrubs by which they take on various shades of yellow, orange, red, purple, and brown. Maple, oak, liquid amber, pistachio, ash, hawthorn, poplar, beech, linden, pear, cherry, crepe myrtle, dogwood, ginkgo, to name just a few, and various types of bushes, vines and hedging plants... Who is the fairest of them all? And what makes all this grandeur possible?

Some kinds of trees show autumn colour and some don't. Some are appreciated for their colour while the leaves of some other just turn brown and fall off unceremoniously. The kind of tree also determines the hue produced. Count on a dogwood for red to purple tones but don't expect orange or yellow. Likewise, expect golden yellow from golden ash, but not purple or red. A succession of warm, sunny days and cold but frost-free nights result in the most spectacular autumn colouring. Ground humidity also has an effect; severe drought or a long, wet period cause stress, which is likely to cause the foliage to turn a more intense colour. A long, dry summer causes colouring to begin later and a dry autumn will result in it lasting longer. The health and location of the tree will also influence the extent to which it will develop colour to its full potential. Freezing temperatures soon put an end to the display as the leaves fall from the branches.

The green colour of most leaves is due to the presence of the pigment chlorophyll that is important in food production by the plant. It is present from the time the leaf unfurls in the spring until autumn when its content declines in response to decreasing light and lower temperatures. Also present in the leaf during this time is a group of pigments called carotenoids that are yellow (xanthophylls) and orange (carotenes). Their colours are covered up by the green of the chlorophyll so you don't see them until autumn when the chlorophyll content declines and reveals them. Another group of pigments, called anthocyanins, are responsible for the red and purple tones. These pigments are not in the leaf all season but are produced in response to changing weather temperature. When the temperature drops, the veins in the leaves that carry sugar and nutrients cannot continue their function as before, sugar then accumulates in the leaf cells. In the presence of bright light, the sugar is broken down so anthocyanin pigments are formed and red and purple tones result. The brighter the light the more anthocyanins are formed. These blend with the yellows and oranges in an infinite number of combinations to produce the brilliant varied tints that we admire as autumn colour.

Trees aren't the only plants that put on autumn foliage. Many shrubs and vines also display great autumn colour. The Oak Leaf Hydrangea is a small shrub with large textured foliage which turns a reddish, bronzy-orange in autumn. Viburnum is a rounded shrub with beautiful clusters of white flowers in spring, then bright foliage in warm shades of red in autumn. The smoke bush features feathery, smoky grey inflorescences and a brilliant display of yellow, orange and scarlet foliage in autumn. The cultivar 'Grace' is particularly attractive with delicately pink foliage early in the season, turning later to blue-green and then burgundy. Virginia creeper or Boston ivy is a vigorous, self-clinging deciduous climber which adheres firmly to slightly rough surfaces and won't take out brick mortar like ordinary ivy; its glossy green leaves colour to scarlet, yellow and purple in autumn.

So, who is the fairest of them all? Impossible to say. Beauty is in the eyes of the beholder. I love the golden ash with its golden-green summer leaves that turn deep old-gold in autumn, the pin oak with crimson autumn foliage on an elegant conical tree, the dogwood with brilliant purplish red autumn foliage - by the way, my dogwood is absolutely stunning this year! Ornamental pears are shapely trees with orange, red or gold foliage, sometimes all at the same time. Another favourite is the Chinese pistachio, its divided leaflets are glossy green during summer and change to intense shades of red in autumn. It is often planted as a street tree, but can stay small enough for most gardens. And there are many, many more...

However, injecting autumn colours into the landscape is more than just planting autumn foliage trees and shrubs. For the best impact, one needs to think about where one places them in the garden, how their foliage contrast against evergreens or dense green hedges. Further, autumn colour is more than about foliage, there are flowers such as dahlia, chrysanthemum, some camellia, to name just a few, that are in their elements during autumn in our mountains landscape.

