

rowse tree services



AUTUMN NEWSLETTER 2012

Issue 9

Trees and drought: Water is necessary for the growth of plants as an essential element in its own right and as a solvent in which other nutrients are dissolved and moved around the plant. The amount of water present in the soil and its availability is influenced by the amount of rainfall, soil texture (the amount of clay, sand and silt present), soil structure (how the soil is arranged to create micro and macro pores), evaporation and transpiration and the time of year.

News:

We have bought a sawmill attachment for the large chain-saw so we can now plank up trees that have been felled in inaccessible areas. It is often easier to carry out as planks rather than as rings.



planted trees are very susceptible to drought and will quickly show signs of faded or yellow leaves if not watered during dry periods.



Preventing drought conditions in

soil: The addition of organic matter to the soil will increase the water holding capacity during dry periods.

At a recent seminar I attended Ed Gilman from Florida (hort.ifas.ufl.edu/woody/drought.shtml) asserted that the use of mulch did not make a huge difference to the rate of water loss from the soil contrary to common assumptions but was still of use for reducing competition for water by weeds.

It is important to prevent compaction of the soil by not allowing vehicles or pedestrians beneath trees and shrubs particularly when the soil is wet, so here the old adage of “don’t go on the soil if it sticks to your boots” still holds true. An air spade (see website) can be used to de-compact areas which have been packed down and incorporate mulch at the same time.



Drought:

Although we have had a very wet summer the previous spring and winter were exceptionally dry. Trees may take a long time to recover from the stress of drought and become prone to disease as a result.

Symptoms:

Trees may show early symptoms such as leaves wilting during the day and recovery at night, older leaves become a faded yellow or brown. As the drought intensifies younger leaves become dull followed by wilting and browning and if conditions continue leaves and needles of all ages die and fall with death of the tree resulting. Some broadleaf trees have gummy exudations and cracks on the branches and stems, mature trees may show signs of thin foliage and lack of new growth. Newly

Drought:

What you can do to manage your trees and shrubs in a drought:

Keep shrub borders weed free to increase water and nutrients available for desired plants. Use an organic mulch around the base of plants to reduce soil temperature and competition for water and nutrients from weed growth (see previous news letter on woodchips)

Do not prune shrubs or trees when they are suffering in a drought as they will be using energy to produce wound wood. Sun scorch can be a problem when trees are opened up to direct sunlight by removal of too many branches causing bark die-back on stems and trunk.

Set priorities for watering - water your favourite trees and shrubs first. Generally - don't water the lawn it is least important and most tolerant!

Check frequently for drought symptoms, yellowing, wilting, dropping leaves. Trees and shrubs become susceptible to other disorders as soon as they show signs of drought stress, such as Honey Fungus. Add water deeply and slowly to the root zone to a depth of at least 30cm (12in). Do not add fertilizer during a drought, this will only add to the amount of foliage that needs to be supplied with water, increasing water stress.

Symbiotic mycorrhizal associations between roots and fungi increases the volume of soil available to the plant for moisture absorption by adding a fine network of water absorbing hyphae attached to the fine roots of trees.

Dry weather has some benefits by reducing some fungal leaf and shoot blights such as rusts and scabs.

Future Management:

Our unpredictable weather patterns look likely to mean that we will experience more droughts and so future management is likely to involve selecting plants

more tolerant of dry conditions. Drought tolerant species include:

Field Maple / *Acer campestre*—yellow autumn colour.

Judas Tree / *Cercis siliquastrum*



Hawthorn / *Crataegus monogyna* this is a photograph of the one down by Lime Kiln car park in Budleigh.



Monterey Cypress / *Cupressus macrocarpa*

This tree is also tolerant of salt winds and is often seen planted around here.

Myrtle / *Myrtus communis* a shrub that is aromatic and can be used as hedging.



Pines are also good for dry sandy soils. The needles have thick waxy cuticles to reduce water loss and reflect sunlight.



Evergreen Oak / *Quercus ilex* good for seaside areas and tolerant of drought. This will create a big evergreen mass often used in Italian gardens, along with Bay and Holly.



Yew / *Taxus baccata* a native evergreen usually found in Churchyards or as hedging.



Next Issue: Niwaki, Japanese tree Pruning techniques.