

GARDENING ON CHALKY SOILS

WITH PANTILES NURSERIES

One of the most common questions I am asked at the nursery is what can I grow in my garden as it is very chalky. The first thing that always springs to mind is to tell them not to panic and this is important for me to get across here. You cannot ignore the problems but on the other hand there is nothing wrong with chalky soil, provided you accept it for what it is and work with it rather than trying to work against it. What I mean by this is don't expect to have great success trying to grow acid loving (ericaceous) plants in your soil.

Be wary of sweeping generalisations and be prepared to experiment. I have been surprised on more than one occasion with the results of doing just this. In some cases you may find that plants develop chlorosis (yellowing of the leaves), but even when this happens I have seen plants put on magnificent floral displays as if all was normal!

Before I go on, I should take a moment to explain what is meant by a chalky soil. Chalk is a type of limestone, however unlike many of the limestone rocks which are present throughout much of the UK, chalk is very soft and easily dissolves, making soils less acidic and more alkaline. Soils with a high level of chalk often appear stoney and when you look closer have white stones present. These fragments of chalk increase in number as you dig downwards, often forming a dense layer underneath sometimes only a foot below the surface. The main issue with chalky soils, other than the difficulty with cultivation, is that the presence of high levels of chalk can result in other nutrients which are present in the soil being made unavailable to any plants present. The ins and outs of the processes involved are too complicated to go into here and I suspect would bore the majority of you rigid. The main thing to remember is that the consequence of this is that when you apply nutrients to chalky soils often these become unavailable to plants after a short period of time, leading to chlorosis. Hence one thing to remember is feed plants on a regular basis.

Some people try to fight this natural phenomenon by trying to increase acidity (reduce alkalinity), by adding organic matter and chemicals such as sulphur, these can only give a temporary improvement. If you add these as the acidity increases this results in more chalk being dissolved reducing it back to nature's status quo. Organic material (avoid mushroom compost which contains chalk) however can be beneficial in improving water retention which is good, as chalky soils generally tend to be dry.

If the urge to grow a few acid loving plants is too much, treat that immediate area where you intend to plant, rather than the whole garden and be prepared to repeat the process regularly. Feed often and also invest in irrigation as dry chalky soil becomes more alkaline.

Normally books tell you to use bonemeal when planting trees and shrubs, however as this is also alkaline it should be avoided, use either a fertiliser called Superphosphate as a substitute, or my preference would be to use a product called mycorrhizal fungi. Mycorrhizal fungi work in association with the plants, developing a huge network of 'roots' which take nutrients huge distances back to the plant. These fungi are used by most professional landscapers to aid establishment as well as being recommended by the RHS amongst others, Pantiles Nurseries stock and use the ROOTGROW brand, both in the nursery and when planting trees and shrubs.

When digging a hole avoid bringing more chalk from lower down, if necessary discard this and refill with bought in topsoil. Where you want to use potentially sensitive plants think about the possibility of using containers or raised beds filled with imported planting media or topsoil which is known to be less alkaline.

To give you an idea of the plants which are suitable for growing on chalk, I have supplied a list of some of the best performing plants below. Please note this isn't a complete list and remember my comment earlier 'be prepared to experiment'. With all of these it is best to provide a little extra care in the initial years to ensure they establish quickly and provide a long and fruitful life.

TREES INCLUDE...

Acer cappadocicum aureum, Acer platanoides Drummondii, Acer platanoides, Crimson King, Acer griseum, Aesculus, Amelanchier, Arbutus unedo, Betula varieties, Carpinus, Cercis siliquastrum, Crataegus, Davidia involucrata, Fagus, Laburnum, Malus varieties, Morus, Prunus varieties, including the flowering cherries, Robinia, Sorbus aria

CONIFERS INCLUDE...

Chamaecyparis lawsoniana, Cupressus, Juniperus, Pinus, Taxus, Thuja

SHRUBS INCLUDE...

Berberis, Buddleia, Cercis, Cistus, Deutzia, Euonymus, Forsythia, Hebe, Hibiscus, Hypericum, Kerria, Kolkwitzia, Laurus nobilis, Lavandula, Ligustrum, Lonicera, Mahonia, Paeonia, Philadelphus, Potentilla, Prunus, Pyracantha, Rhus, Ribes, Rosemary, Sambucus, Sarcococca, Spiraea, Syringa (Lilac), Weigela

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