



BULB LOG 46.....16<sup>th</sup> November 2011



**Corydalis 'Craigton Blue'**

It was night time and very dark so I took a torch with me as I walked up the garden with the dogs - following the beam of light I was stopped in my tracks by a sea of spectacular silver foliage. It took a minute to realise that it was the new foliage on Corydalis 'Craigton Blue' coated in water droplets that shone like silver.



**Corydalis leaves night and day**

These two pictures are of the same plant one taken by flash at night the other taken in daylight and show the spectacular effect that the water droplets have. Perhaps I should walk around the garden more often in the depth of night viewing by torchlight.



**Narcissus 'Cedric Morris'**

I was surprised to find this Narcissus 'Cedric Morris' in full flower – this is a bulb that most years will open its first flowers in mid to late December – this is the earliest that we have ever had it in flower.



**Narcissus 'Cedric Morris'**

This early flower reinforces my belief that winter Narcissus will flower early if the temperatures stay mild immediately after the roots emerge – if it is cold at that time they flower considerably later.



### **Crocus cataphylls**

I highlighted the importance of removing the remains of the flowers last week and Janis Ruksans adds an important point in the forum that it is also important in some species to remove the cataphylls that surrounded and protected the flower bud. *Crocus caspius* above and *Crocus longiflorus* are among the species that have long cataphylls. These have also served their purpose now and as they die back they too can become infected by mould and so should be plucked off by tugging sharply upwards. It is advisable to place your fingers on the gravel as you tug upwards to prevent dislodging of the corms.



### **Mould on Fritillaria leaf remains**

Another task is to clean away the remains of last year's leaves on the pots of *Fritillaria* that I did not get round to repotting – as you can see they have already attracted grey mould.



### **Slug damage**

The tips of these leaves have been grazed off by a marauding slug or snail so I have placed a few slug pellets down. Three pellets per pot is more than enough to do the job so do not be tempted to scatter them around 'wholesale'.



### **Mould on slug pellet**

One problem leads to another as after a week or two of damp conditions you will find that mould will form on the slug pellet. This should be cleaned up to minimise the risk of it spreading to the living tissues of the plants.



### **Mould on Narcissus pollen**

There is so much moisture hanging in the air just now that moulds are forming on the living pollen – there is little hope that I will get any seed set in this weather. There is a hole chewed in the flower, too!



### **Narcissus romieuxii and Narcissus albidus albidus**

The Narcissus do cheer me up in the dark wet days and who could resist their wonderful flowers. I especially enjoy the contrast in shape and colour between the yellow *Narcissus romieuxii* and pure white *Narcissus albidus albidus*.

In many cases I am greatly confused by what we see in cultivation as *N. albidus* which seems to be given specific status by some and not by others. My suggestion is enjoy the flowers and stick with the names that you originally acquired the plants under unless you have good and valid reasons to change them. Of course in cultivation we also have the added problem of hybridisation that could not happen in the wild as the plants would be geographically separated.



I found this poor Narcissus bulb in my potting area and it shows clearly the benefit of having a stored source of food and moisture. Despite not being planted this bulb has managed to send up leaves and a flower bud as the roots slowly probe from the basal plate in search of water.



This image is of a leaf tip on which a moisture droplet condensed, out of the water laden atmosphere.

Last Sunday on the BBC Radio Scotland gardening programme I said that you should not put a layer of drainage in the bottom of pots and containers and I was asked via the forum to give more information. There are a number of fallacies that are constantly repeated in the world of gardening writers and experts without ever being tested and this is one. I have always questioned everything and must have been a very annoying child always asking questions then when I was a bit older I started to carry out my own experiments. It is a wonder I have survived this long without injury from the experiments, especially with electricity, that went wrong or being strangled by an elder driven to distraction by my constant questioning.

The passage of water through a medium is governed by a number of factors but the main ones are gravity and surface tension. Gravity is easy as we all know that it exerts a downward force on everything including the potting mix we use in containers and the water that comes either naturally as rain or artificially when we water. It is essential that any container we use for planting should have adequate drainage holes to allow any surplus water to pass freely away. As we do not want the potting mix to fall out or be washed through these holes we need to

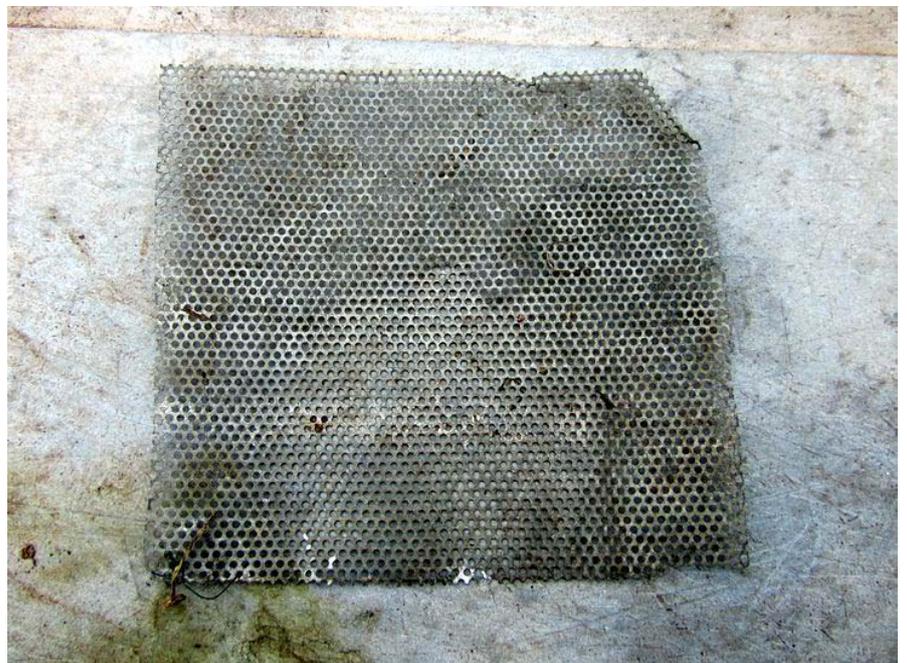
cover them with something that will stop the mix falling out but will still allow the water to flow freely.

In traditional clay pots and containers with large holes a crock – such as a broken bit of clay pot was commonly used while more experienced growers often used a disc of perforated zinc.



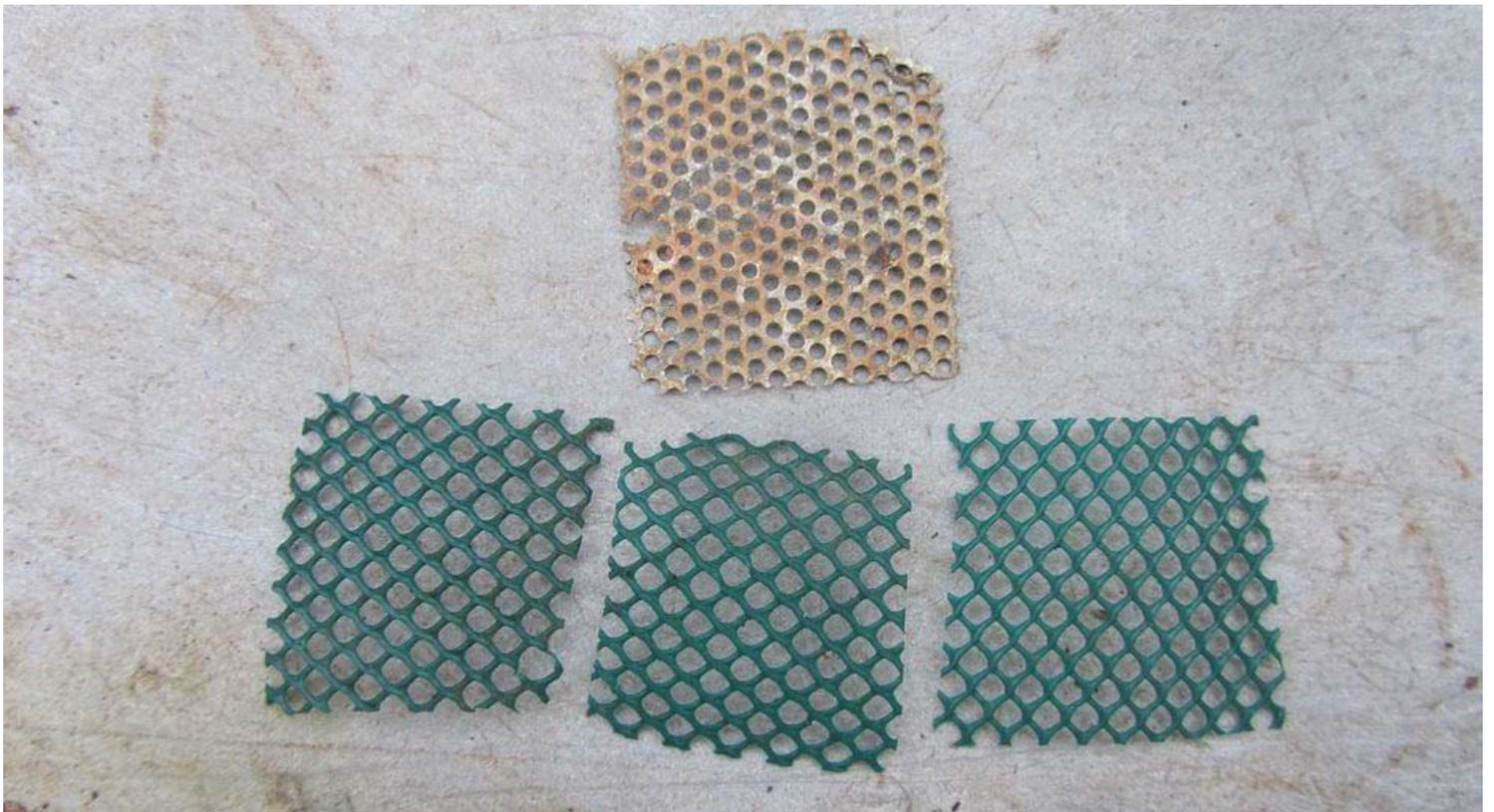
Perforated zinc sheets are available at some builders merchants.

The zinc had the additional benefit of preventing slugs and earth worms getting into the pot. The damage a slug could do is obvious but earth worms also cause harm by eating the organic material in the potting mix which in time converts your nice humusy, open mix into a fine muddy mess.

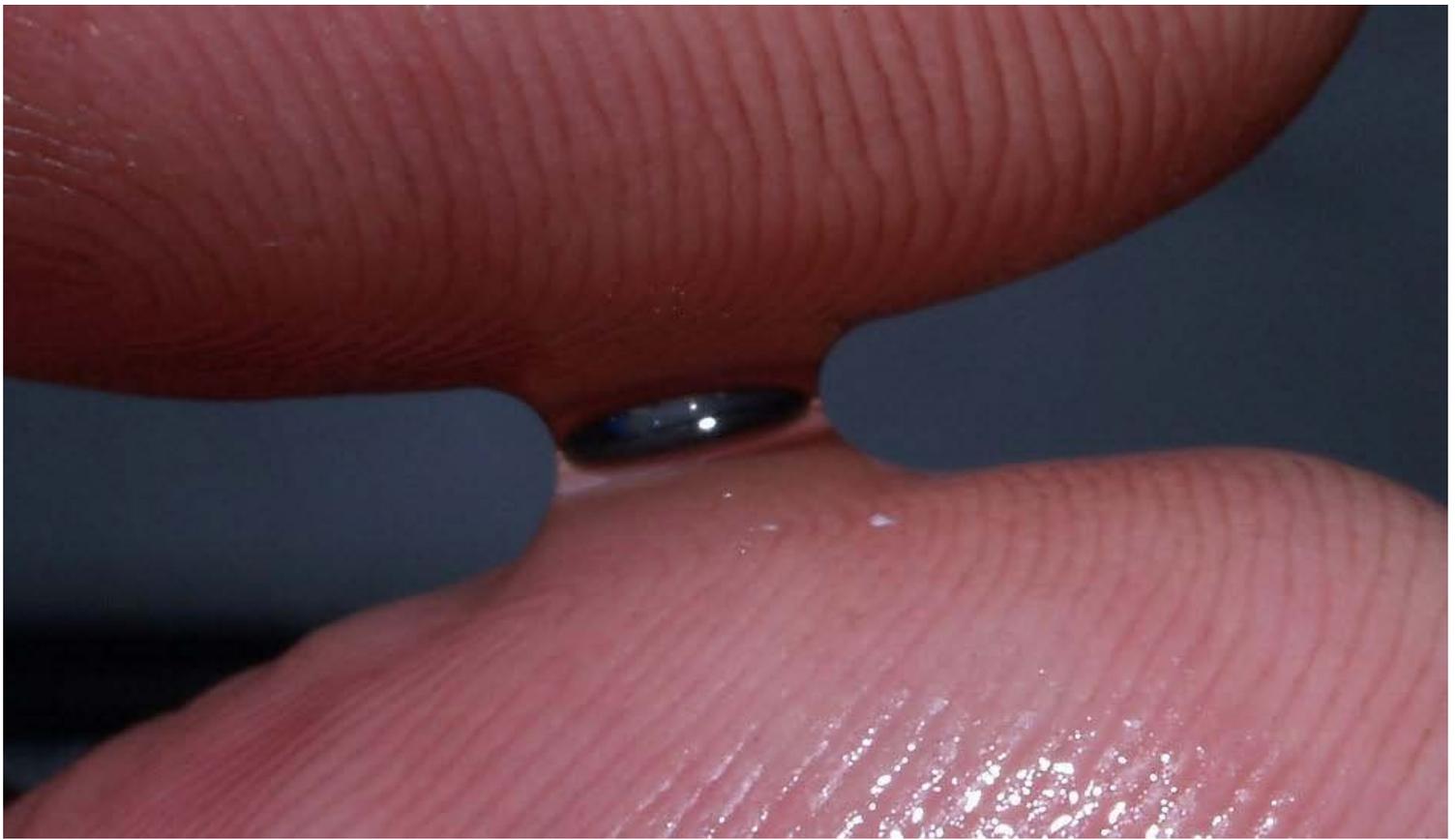




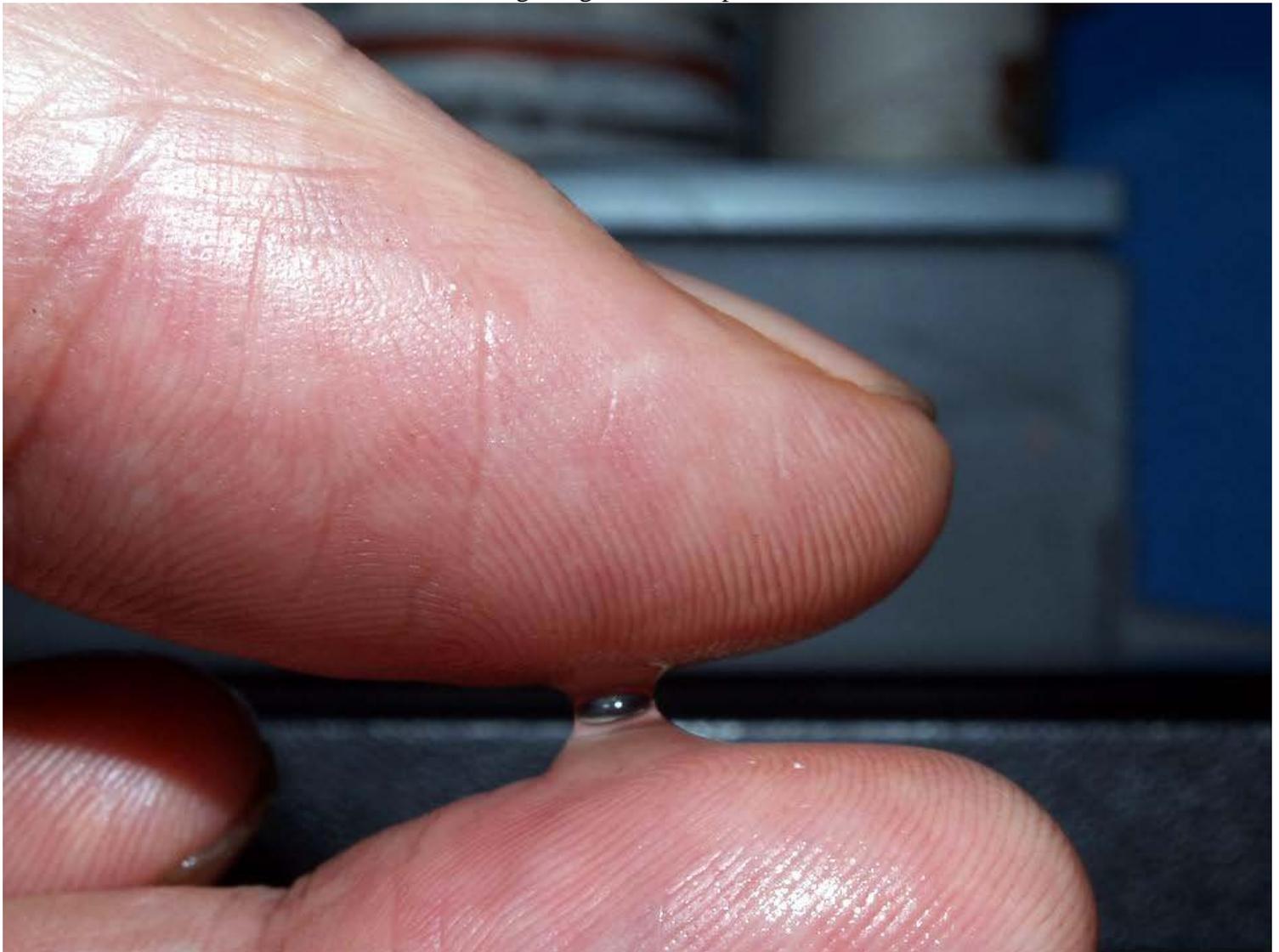
I also use plastic mesh that is easily cut: this is stocked at most garden centres and these make excellent covers for drainage holes that hold the potting mix in but allow free passage of the surplus water.



Both the plastic and zinc sheets are easily cut to size to cover any drainage holes in pots and containers.



Now to surface tension - if you do not know what this is and want to see its effect then hold the tips of your thumb and middle finger together and dip them into water.



Now watch very closely as you slowly start to move them apart – you will notice that initially the water bridges the gap but as it gets wider the film of water forming the bridge gets smaller and eventually breaks. This tells us that

the force of the surface tension is strong enough to hold water in small gaps but not in big gaps and this is the knowledge we need to understand to work out the best potting mixes and drainage systems.

The ability of potting mixes to retain water varies according to a number of factors but essentially we want any surplus water to drain away quickly leaving a suitably moist mix with plenty of air gaps. The mix needs to contain suitable particle sizes to form air pockets as well as retaining moisture. It is essential that air (oxygen) is not excluded from the roots of plants as without the presence of air they cannot take up moisture. However we do not want very large air pockets around the roots - these could prevent moisture accessing the roots - hence the need to gently firm the compost when planting. A plant is like us, it will die more quickly if immersed totally in water than it will if it dries out – it is not the excess of water that kills but the exclusion of air.

The old school of gardeners were taught to put a good layer of drainage into the bottom of their pots and containers because it allows the water to pass freely away however they ignored the effects of the surface tension that opposes the force of gravity holding the water within the smaller gaps of the potting mix forming a perched water table - I am not alone this science has been understood for a very long time. In fact adding a layer of gravel as drainage at the bottom of the pot does the very opposite of what they want as the mix above will be wetter for longer than it would be if there were no “drainage layer” at all. I say that the drainage needs to be all the way through your potting mix and the old school would better achieve their desired effect by mixing the drainage into the mix and not having it at as a separate layer at the bottom. Even further, as it is often the neck of the plant that is most vulnerable to excess of moisture, they would be better turning the whole thing upside down adding the gravel layer to the top of the pot and not the bottom.

We also have to understand the difference between traditional clay pots which have porous sides allowing water to escape all around and plastic pots where the water can only drain through the bottom or evaporate from the top. It is also possible to cut side slits in plastic posts to improve drainage. Clay pots plunged in sand form a link with the plunge material allowing moisture to pass both ways through the sides as well as through the bottom which greatly increases the buffering of moisture levels.

Potting mixes in plastic pots hold on to moisture much longer than clays and so should contain a higher proportion of grit. To help smooth out the extremes of moisture pots should be placed on (plastic) or plunged (clay) on a deep layer of sand. The deeper the plunge the better as the excess moisture will be drawn down forming the perched water table well away from the plants and their roots.

Paul Cumbleton has posted a wonderful very detailed explanation of this on the SRGC Forum and I would advise you all to follow this link and read it now. [Forum](#)



This is a bud and flower of **Narcissus romieuxii albidus zianicus** showing the colour change as it goes through these stages.



The final picture this week looking into the face of *Narcissus romieuxii albidus zianicus* – notice the flanged (turned back) rim of the corona.