



BULB LOG 49..... 5th December 2012



How the best laid plans so often fall by the wayside! With the slow progress of flowering in the bulb houses I had thought that for this weeks' Bulb Log I could review the troughs you see below, showing how some of the plants are fairing but a layer of ice covered with a dusting of snow has put paid to that idea.





I had recently received some nice seeds that need sowing and I had no compost ready mixed so that was one of my tasks this week. I would normally mix my composts in our cement mixer but when I just require a smaller amount I do it by hand in a tray and here is the mixture that I use now. A lot is spoken about the precise formula your mixture should consist of but it does not need to be complicated if you understand the conditions that you are trying to create for the plants. All that plants growing in pots require of a compost is something to hold them upright, with good air retention so the roots do not drown, and an ability to retain moisture so the roots do not dry out too quickly. As well as this they need a source of essential nutrients.



I use **sharp sand** from a builders' supplier or quarry, you can see it has a range of particle size. Not what is called 'builders' sand' the UK; that is too fine and has been graded through a finer screen to remove the larger grains and is used for making a mortar mix with cement to lay bricks.



I like to know the proportion of particle size contained in my sharp sand mix before I start and to do that I pass some of the dried sand through a basic household sieve.



This gives me two piles the fine material that passes through the sieve, on the right, this is what I referred to as 'builders' sand' and is too fine for our purpose. The material I want should contain around 35-40 percent of larger particles up to a maximum size of 6mm this keeps the sand open with plenty of gaps to allow air into the mix and this test shows that this sand meets my requirements. In the garden sand beds I use just this sand to grow plants in but in plastic pots it is still not well enough drained for my liking so I need to add more grit.



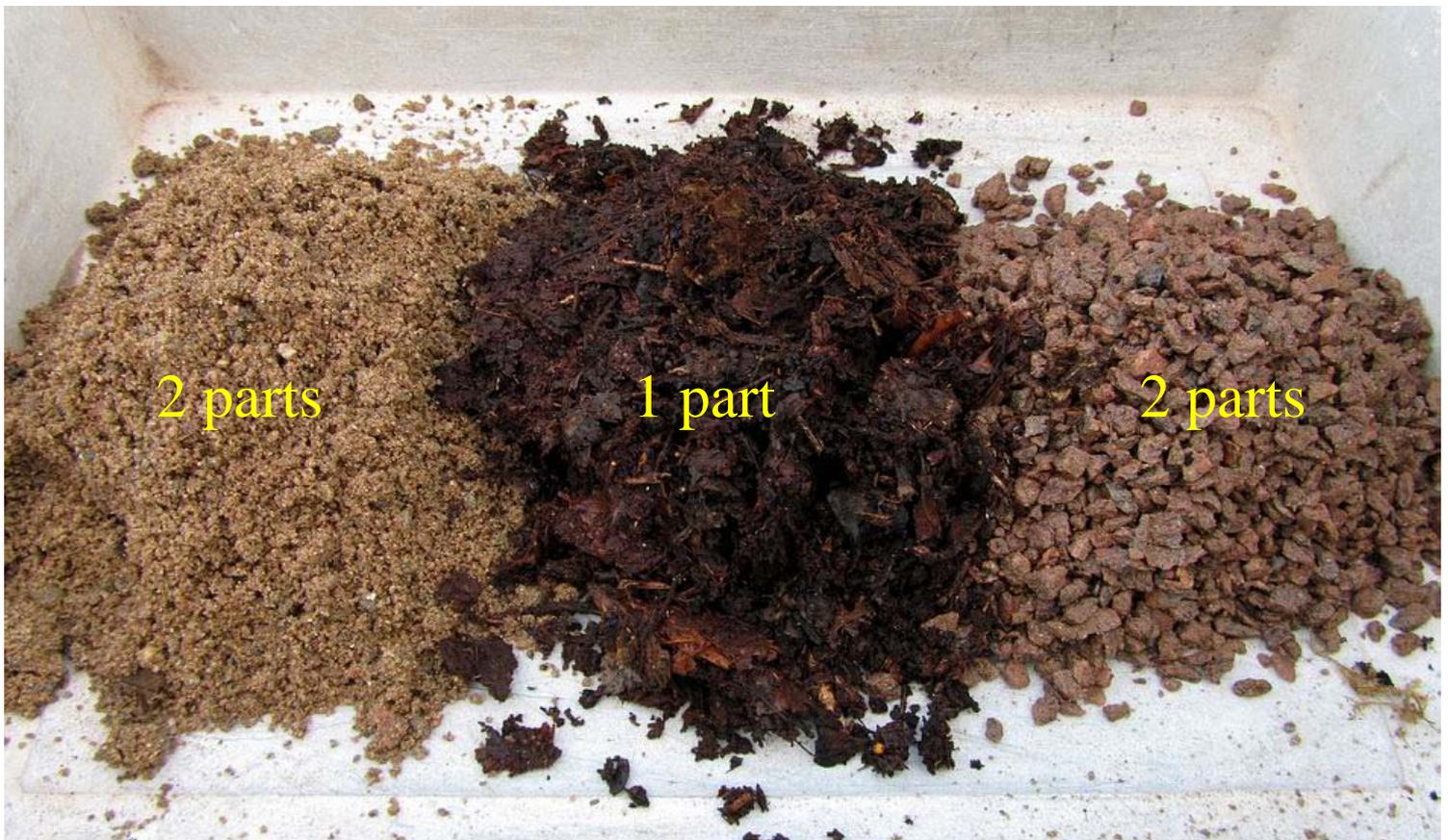
I use 6mm granite Grit from a local quarry. In Scotland this material is readily available as it is used to render the exterior of buildings – a process called ‘harling’ in these parts. There are many sources of this size of grit such as turkey, hen and chicken grit which is mostly a flint type material for feeding to poultry to aid their digestion. Some people advise that you should use washed grit as fine dust can prevent the mix from draining freely. You will see from the picture above that I do not adhere to that advice - I like the fine to dust-like particles as I believe they help supply some trace elements to the final product and as my mixture is so gritty there is no danger that this fine material will clog the drainage.



In many ways I could work with just those ingredients - sharp sand and grit - as many bulbs grow in pure mineral based soils in nature. However I like to add a little humus content in the form of leaf mould. Not only does this humus help retain moisture but I believe that it also adds nutrients or more correctly feeds the microscopic soil flora and fauna that will in turn break down the minerals into soluble salts that can then be taken up by the plants. The old saying ‘feed the soil and the soil will feed the plants’ is in my view a very wise one.



I measure the quantities for the mix by volume using in this case a plastic scoop but for the bigger quantities I mix in the cement mixer I would use a bucket.



Formula – as a standard I start with 2 parts sand and 2 parts of grit and 1 part of leaf mould. This is an ideal very free draining mix for growing bulbs in my regime using plastic pots. Sometimes if I am sowing seed of other plants especially Primula, Meconopsis etc, I will add more leaf mould up to a maximum of 4 parts. Your own ideal mix will depend on various factors such as the nature of the ingredients, whether you use clay or plastic pots, your climate, etc.



So far, other than the leaf mould I have not added much in the way of food for the plants so I add bone meal into the mix. I do not measure it out precisely but scatter a quantity over the ingredients before I thoroughly mix them together. Bone meal will release nitrogen and phosphorus slowly over a very long time and as long as you are sensible you are never likely to overdose your plants.



The final mixture meets all the plant's needs –the larger particles of sand and grit hold it open so that it can hold both the air and water essential to the plant's well being. Without a film of air around their roots plants cannot absorb moisture and so in water logged conditions where all the air is excluded and despite the abundance of water the plants cannot absorb it. This is why the symptoms of water logging and drought shown by plants such as the yellowing of leaves and the flopping of stems, are very similar.



Now on to some seed sowing- First I prepare the labels and half fill the pots with the compost mix.



The majority of the seed I have to sow are Narcissus which regular readers will know I always sow deeply – that is as least 5cms down the pot.



Once the seeds are sown I top up the pot to within 1cm of the top with compost before top dressing with gravel as shown below



These pots will be placed in an outside frame exposed to all the winter weather until germination takes place – as they germinate I will move them under cover to afford them better protection from frosts and foraging slugs and snails.



Sharp eyed readers will have noticed that the pot in the front right of the tray has not been top dressed neither has it a label yet – that is because apart from Narcissus and Sternbergia seeds which get sown deeply I also have one packet of Fritillaria seed which has to be sown on the surface to allow it to germinate.

Wind distributed seeds like Fritillaria are all best sown near the surface with just a centimetre of grit on top to hold them in place and help preserve moisture. Now the question – do you sow them flat like above or is it better to slip them into the compost on their edge? In nature these seed are blown by the wind and fall randomly onto the ground.

If you study the shape of the seed you will notice that they are pointed towards one end, the end that was attached to the parent in the seed capsule. After a period of natural disturbance these seeds will work their way into the ground and as the pointed end offers less resistance than the blunt end the chances are that most will orientate that way up.



If I have just a few seeds and the time to do it I will slip each seed into the ground pointed end down using a pair of forceps.



In reality it makes little difference how you sow this type of seed and my usual method is to scatter them on the surface then gently rake the surface with a kitchen fork or the bent tips of my forceps and you should notice that most of the seeds will work their way into the ground, mostly pointed end down. If the seeds do lie on their side there is a slight increased risk of moisture pooling on them which can then go on to cause the seed to rot before it germinates. This pot will now get topped off with the gravel and take its place outside.



The final image this week is a colourful combination found in many Paeonia seed pods – these are Paeonia cambessedessii, the bright scarlet unfertilised seed contrasting with the plump dark fertile ones.....