

Growing Daffodils in Pots

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In England it is not uncommon to grow daffodils in pots, unlike the USA and other countries as we do not have different time zones and our major shows tend to fall on the same days each year. This means that if you live in the north of England and you wanted to show the first weekend in April in a collection class, which calls for 4 divisions from 1-4, without pots it would not be possible as you would probably not have a division 3 at that time of the year, unless it was an extremely early year. Also your selection from the other divisions would be limited. I live in the middle of the UK and I would find it very difficult to show in the early part of the season without the help of pot culture, although through my experience the majority of flowers cut out of the ground are better, they have more substance, the perianths are less floppy, less nicking and they tend to be larger but they flower mostly 10 -15 days later than the ones in pots, a necessity in my case if I wanted to compete at the RHS daffodil competitions around the 12 April and some pot grown flowers are needed for the National Daffodil show around the 15 April.

There are many versions of how to grow in pots and for the purpose of this article I will use my tried and tested methods.

Pots- I mainly use terracotta, but over the last 5 years through experimenting I have proved that some varieties prefer to be wetter and so I use plastic pots for them. The sizes I mainly use are 10" pots they will hold 5 bulbs, but in the case of Sheelagh Rowan 3 or sometimes 4 because of their size. If I have only 3 bulbs I would use 8.1/2" to 9" depending on the size of the bulbs to be potted.

Going back to why I use plastic pots - it started with 'Ombersley'. Up to 5 years ago I could not grow this variety in a pot, in fact the bulb was often bigger than the flower and yet I had no trouble growing this variety in the ground. So I tried a controlled experiment - I grew 5 bulbs of Ombersley in a 10" plastic pot and 5 bulbs in a 10" terracotta pot. At flowering time the ones in the plastic pot were the same quality and size as the ones that I produced in the ground and the ones in the terracotta were the same as previous years. The next year I grew all my pots of Ombersley in plastics and as they say the rest was history. My rationale as to why they were better was that with the same amount and frequency of watering unlike the terracotta pots the plastic pots stayed wetter longer which suggested that Ombersley required a more even supply of water to produce its flower than it got in a terracotta pot. With this in mind I have continued to hold a series of controlled experiments on varieties that I was able to grow in the ground successfully but not in pots and in every case the use of plastic pots have produced the more consistent results.

Growing Medium - For the record for over twenty five years I was one of the most successful growers of early flowering chrysanthemums in the UK with not only disbuds, but also sprays. I grew in the open ground for the disbuds and mostly in the ground for sprays although I did in the last few years grow some sprays in 6" plastic pots, but I did use a lot of compost to root the cuttings and to grow on the plants before planting in the open ground. Potting compost is like a good cake mix it should be granular with plenty of

air spaces and when moist should when squeezed in the hand hold firm in a long lozenge but when rubbed between the forefinger and the thumb should break up into crumbs. The content of my potting compost (and this also forms the base for Terry's miniatures) is as follows:-

By volume

- 1 part Loam - the loam I use is very greasy and granular, it is often used to top dress bowling greens and cricket pitches.
- 1 Part Grit - I use horticultural grit which is 3-4 mm down in size.
- 3 Parts Peat - I use medium grade Irish sphagnum moss peat

As you can see all the components are granular to which before mixing I add 5" pot of charcoal per bushel to keep the compost sweet. As you can see I was not brought up in the metric age and never needed it in my working life as I worked in the Aerospace industry which is still today working in Imperial measurements. So 1 Bushel is 8 gallons by volume.

I mix these components the same way that you would mix concrete by hand with the grit, charcoal and fertilizer sprinkled on top of the grit as this helps with the distribution of the fertilizer through the mix. My method of mixing is quite simple. I take a shovel full from the bottom of the pile and throw the contents at the wall, in my mixing shed, this is repeated until all the pile has ended at the base of the wall. I then repeat the process and that will complete the mixing. By throwing it at the wall this distributes the peat, loam, grit and fertilizer evenly and increases the air volume in the mix. I do not believe in cement mixers as I think all they do is knock the air out of the mix.

Fertilizer - I mix my own fertilizer for the same reason I mix my own compost, I know what is going into it. The mix I use is one used by John Pearson and I believe it was the one used by Guy Wilson which John picked up when working for him during his school holidays.

The mix is as follows:-

- 1 lb of Hoof & Horn meal
- 5 lbs of Superphosphate of Lime
- 5 lbs of Bonemeal
- 5 lbs of Sulphate of Potash

These contents are mixed together and I then use 12 oz to the bushel of the compost mix.

To mix the fertilizer I have a drum mixer.

Potting - I usually start potting in mid September and finish all my Division 1 to 4's before the end of September. Before potting I like to soak the clean terracotta pot for about 24 hours, to prevent the pot pulling all the moisture out of the compost. I never crock the pot as the space used for the crock reduces the size of the pot and my compost is so open that extra drainage is not needed. At the bottom of all the pots I used to put about 3/4" of composted beech leaves but my source of these has dried up and so I use the same sphagnum moss peat as in the compost. The purpose of this is to act as a reservoir of

moisture for the roots to run round in. Next I fill the pot with the potting compost mix to about two thirds the way up the pot, level it off and then I place the bulbs around the circumference of the pot, equally spaced, pushing them lightly into the compost below. Before covering the bulbs I insert the label. I like to use 12" plastic ones and I write the name of the cultivar on both sides one side with a china graph pencil and the other with a permanent marker pen. I know it sounds like a bit of belt and braces but it would not be the first time the permanent marker has washed off in the plunge. The label is inserted in between the bulbs with the permanent marker side pointing outwards as I find it easy to read. Once this is done I cover the bulbs with the potting compost, the first scoop is always in the centre of the pot to hold the bulbs upright around the pot and then the pot is filled up to about ½" from the top to allow room for the water. If they are potted to the correct depth the nose of the bulb is just below the compost. They are then placed into the plunge frame.

Plunge Frame – There are many ways to plunge bulbs, I dig a trench in the garden, stand the pots in the bottom and back fill with peaty grit mixture. If this method is used then the top ½" of the pot should be covered in potting grit which is tipped out when the pots are lifted out of the plunge. You could use straw to cover but I found that over the winter months it could become very compressed and sometimes distorts the leaves on the early growth. The other method is to make a large cold frame out of marine plywood which can be assembled and dismantled every year and encase the sides with 2" thick polystyrene insulation to keep out the frost and fill again with straw or a peaty mix. The method I use is to use my old block built cold frames which were built in a bank which produces the same effect as burying the pots in a trench



Fig1.

Plunging – The pots are placed in the frames pot thick, when the frame is full I make a chart of which cultivar is in each pot and where the pot is in the plunge. I do not plunge

the pots straight away. I like to water them a couple of times in the first week after potting to ensure that the compost is moist all the way through so that the bulbs will start to grow. About the end of October or early November before we start with the heavy frosts I completely cover all the pots with plunge material. I use the same from year to year, which is peat, perlite and horticultural grit. Before I start I make sure that the compost in all the pots is moist and then fill to the top of my pots with a fresh peat perlite mix, then the whole of the frame is filled with the plunge material making sure that the gaps in between each pot is filled in. When completed the plunge material should be between 4" and 6" above the top of the pots. I can now forget about them until February of the following year. Just as a note last winter we had about a month where the temperature never rose above -8 degs in the day with night temperatures down to -20 degs C and even though the top of the plunge was frozen solid not one bulb was lost due to the cold.

Removing Pots from the Plunge - Sometime in February from the 14th to 28th the pots of bulbs come out of the plunge. I like the weather to go into a milder spell so that the foliage has time to green up before we get another cold snap. These last two years the pots were left in the plunge until the end of February because of the extreme cold and they were better for it, the growth got away quicker. When I take the pots out of the plunge I remove ½" of the peat/perlite mix from the top of the pot which I applied prior to plunging also making sure there are no misses. If they have problems then I remove them from the pot. Also before housing the outside of the pot is cleaned with a quick blast of cold water. If I feel the growth is too advanced they go straight back into the plunge and the pots are re-covered with plunge material. The reason is to protect the roots from severe frosts.



Fig 2.

Watering and Feeding – All pots when they come out of the plunge get a 5ml spoon of sulphate of potash which is watered in and the next time the pots are watered is either when the foliage has greened up or the pot is starting show signs of drying out. The frequency of watering is gradually increased from once every 5 days to 3 times a day during April if the temperatures are high. The quantity of water applied is measured to the amount of growth of the bulbs foliage. About a pint at first to 3 pints every watering, Daffodils love water and it increases the size of your flower and their smoothness. I use feeds which are soluble but I use these feeds as straights and apply one 5 ml spoon per week and water it in. I have found over many years that most of the soluble feeds that are applied diluted, run off, but if you use it as a powder feed it lasts in the pot for about a week plus, depending on how frequent and how much water you give them. Of the two feeds I use, one has an analysis of 15 N : 30 P : 30 K and the other 12.5 N : 25 P : 25 K. The former is used to bulk up the growth and the latter is to finish off and which one I use depends on what each variety requires and contrary to belief a max of 4 feeds are applied to each pot. If you compare the amount of feed applied to the plot which is 2ozs per square yard you may think this is gross feeding but I have found that by feeding the pots there is less weight loss per bulb and in fact there is usually an increase.

Timing - I find this is the simplest method. I pot in September/October and put the pots into the cold frames about mid November. I cover (plunge) the pots with a 4" peat and perlite mix (see picture 1). I like to get early growth and slowly develop the plant over a long period of time to flowering. This means that I start taking very late flowering cultivars out of the plunge in late January. By mid February I have usually taken every pot out of the plunge but not all have gone into the greenhouse.

I have found that each cultivar of daffodils has its own in-built clock which determines when it is going to flower, give or take a few days and also that if the growth of the bulb is delayed and the foliage and stem has not reached its potential it will not affect its natural flowering time but it will affect the size of the flower compared to a bulb that has made good early growth and reached its full potential for that cultivar. Through experience I have learnt what growth development is required by a certain week and when to take them into the greenhouse to move that growth on and when to take them out to slow them down. In some cases I leave them outside until they are about to flower. All the time I am trying to get buds early and to bring them out as slowly as possible.

As an ex-chrysanthemum man when I first started to grow daffodils I was frustrated and ignorant as to how to time the flowering of daffodils in pots. In fact the first time I grew a few daffodils I potted them and left them in a cold greenhouse until they flowered, they all came in March. The flowers had good quality and size but were just too early. I knew I could grow good flowers, so the issue that needed some thinking about was timing to ensure that I had good blooms for the shows. That's where my good friend Clive Postles (also an ex-chrysanthemum man) gave me this advice 'when you can see the bud emerging from the sleeve, the stem will grow about ½" per day in normal conditions' so in most daffodils when the bud starts to turn the stem length will be about 16" to 18" and it will take about 32 to 36 days to get there, plus an extra 7 days for the flower to grow to a

full size exhibition quality flower. Note the words 'normal conditions' - sometimes it is too warm in the greenhouse and the stem will grow 2" plus in one day, if this happens then I take the pot outside into a light cool place until the length of the stem matches the growth it should have for that day. Sometimes the pot does not go back at all and is left outside until the flower starts to open then the pot is taken into the shade house to flower. As you can see by bringing the pots into the warmth earlier you can get early growth and therefore if you want the flowers early leave them in the greenhouse and if you want them later put them outside in a cool place. I also like to get the maximum growth into the early cultivars and they nearly all have a period in the greenhouse to get them going but most of them spend more of their time outside in the cooler conditions



New CP Sdlg Div 1W-Y



Happy Valley



General shot of the Greenhouse

After Flowering – As soon as I have cut all I consider show blooms out of a pot (or if all the flowers are not up to scratch) they are removed from the greenhouse or the shade house and stood outside and watering is continued on a daily basis at first and slowly decreased to weekly and then to none by mid June. I like to knock the pots out in the first week of July. The bulbs out of the pots are then planted into the plot for at least two years before they are used again for pots.

I hope I have covered most of the points of growing in pots, but it is much easier to talk about this subject than write about it. If you have any queries I am always available by e-mail rogerbb@lineone.net or on daffnet.

Editors Comment

This article was produced for the New Zealand Daffodil Society and I thought it would also be relevant to the UK enthusiast