Clivia colours and crosses

Colours with *Clivia* and breeding for colour has always been a controversial topic and continues to be. Many can’t even agree on the same terminology for colours, and there are many opinions on what the outcome of certain colour combinations will be. These notes are based on my own observations and notes from fellow growers. We will not delve into the scientific reasons for colours or in-depth genetic possibilities. I have also not gone into great details regarding green-throats, white-throats, picotee, splash, bi-colours and a few others. Time for that in another post.

Orange
Orange is the dominant colour in *Clivia* and most crosses involving an orange parent will result in orange offspring. With crossing an orange with a yellow there are three potential outcomes:
1. All offspring will be orange.
2. If the orange parent had a yellow parent, then approximately 25% of the offspring will be yellow and the remainder will be orange.
3. There is also a possibility of the yellow diluting the orange to a certain degree and result in some pastels.

A pigmented based seedling will most likely flower orange or a shade of orange.

Group 1 Yellow
In my experience, breeding a yellow with a yellow will always result in yellow offspring. I have heard discussions from several growers who say that yellow crossed with yellow can breed orange until there have been seven generations of pure yellow breeding, but there is also the possibility that any pigmented based seedlings are the result of stray pollen.

A non-pigmented based seedling of yellow breeding will flower yellow. See also Group 2 Yellow.

Pastel
Pastel is a colour that can have a wide range of possibilities, with anything from a light pinkish colour and apricot through to salmon and a darker pink. They are all a form of orange dilution and many pastels are a result of crossing with a yellow. Crossing a pastel with another pastel can result in orange offspring, possibly pastels and often yellows if the pastels have a yellow gene each. Likewise crossing a pastel to a yellow can result in orange, pastel and yellow offspring.

No one can guarantee a young seedling will flower pastel as it is too variable. If the seedling has a pigmented base, then the flower colour may be pastel or could well be orange.

Peach
There are two types of peaches that behave differently with breeding so to simplify it, I will call this one the African peach and the other, the European peach. The African peach is the more common of the two in the general gardening population and less expensive.

This peach has a non-pigmented base as a seedling. The flower colour can vary from a very pale, almost yellow peach through to a dark, rich peach colour. Breeding peach to peach should result in peach, however, if both of the peach parents have a yellow gene then there is a 25% chance of the offspring flowering yellow. Peach is dominant over yellow so many
peaches have been crossed with yellow to improve the flower shape and form. This means that there are a lot of peaches out in the gardening world that have a yellow gene.

**European Peach**
The European peach is different to the African peach in many ways. It may have a pigmented or non-pigmented base as a seedling though I would worry if I saw a very dark pigment as I would expect the plant to flower orange. It demonstrates ‘bleeding’ on the petals if there is any damage to the flower. Often the flower is more of a tulip or cup shape than the African peach. It is NOT compatible with a yellow plant and will breed 100% orange offspring if crossed with a yellow. It is also not compatible with the African peach and will produce orange offspring. Crossing a European peach to another European peach should ensure the offspring are all European peaches. Having said that, I have had plants flower orange that were supposed to be European peach. As the seed came from other sources, it is possible that stray pollen was involved.

**Group 2 Yellow**
A Group 2 Yellow plant behaves differently to a Group 1 Yellow. The most common yellow seen in Australia is the Group 1 yellow.

The Group 2 Yellow bleeds on the petals if they are damaged and is only compatible with other Group 2 Yellow plants. This includes the very green flowers like ‘Hirao’ which appears to be green but is still classed as a Group 2 Yellow.

A Group 2 Yellow seedling will have a non-pigmented base.

**Ghost**
A Ghost can be a wide range of colours and exhibits patches on its petals that have a ghosting or watercolour effect. A Ghost can also be known as a parti-colour or water-colour. There are cases where a ghost has resulted unexpectedly from crossing an orange or pastel to a yellow. Many ghosts carry a yellow gene so there is a possibility of yellow offspring if selfing a ghost, crossing with another ghost, or breeding to a yellow. No one can guarantee a seedling will flower with ghosting characteristics.

**Red**
Officially there is no such thing as a red Clivia. All Clivia referred to as red are actually dark orange. Many dark orange flowers appear to look red as the flower ages. Some flowers do actually open with what appears to be red flowers though they are very dark orange.

**White**
There are no white Clivia flowers. Yellow can have a wide range of depth to the colour. Some yellow flowers are a deep buttercup yellow and there are many that are a very light cream colour with all hues in between.

**Bronze**
A bronze can be a very dark orange/brownish colour and always with a degree of green in the throat or on the outside of the petals. The dark orange with green gives the bronze colouring. Breeding a bronze to a bronze does not necessarily mean the offspring will be bronze. We hope for bronze but also realise that a percentage may be orange.
There have been some lovely flowers that are the result of crossing colours. Bronze is often crossed with a Group 2 Yellow and there are many lovely bronze offspring from this cross. If the bronze has a Group 2 Yellow gene, then there is also the possibility of a percentage of Group 2 Yellow progeny. Pastel has been crossed with a Group 2 Yellow and produced some lovely pastels with green throats.

Be careful if buying for colour. It is best to buy a plant that has already flowered or an offset from a plant as you know you are getting what you want. A seedling is always a risk. I have seen more than one large mail-order organisation guarantee a seedling will flower pastel, or red or ghost. As Clivia can take around five years to flower, it is a long time to wait and find out your plant is an orange. I have also seen Clivia advertised as ‘red’ or ‘white’ which is misleading, and seedlings advertised as peach pastel. As peach and pastel are two very different colour types, one with a pigmented base and one without, then I have to wonder what these seedlings actually are.

It depends on the breeding aim as to what to cross with what. It is nice to have an outstanding coloured flower, but the flower shape and form is more important.

**Q & A**

Q. I have a question about the colour of the base of a young green Clivia. I was given some seed by someone in our club, claiming that they are going to be green. The seedlings are now 1 year old with strappy (narrow) leaves. The base and the back of the young leaves have slight pigmentation. Since you say that green is actually a Group 2 yellow, would they not also have unpigmented bases?

A. Yes. Plants that will turn out to have green flowers (Group 2) should also have unpigmented bases. If you can see some pigmentation, it sounds like they may not flower green. Don’t discard them for this reason. Many crosses from a green parent have lovely green throats and are still stunning plants. regards.

Courtesy of Clivia Market, Melbourne  [www.cliviamarket.com](http://www.cliviamarket.com)