

# The Clivia Calendar

I have enjoyed growing Clivias for twenty-five years. The following is a brief description of the cultural practices I employ. This does not mean that there are no other ways of achieving success. Indeed, there are many other ways of growing Clivias as no two Clivia cranks will be unanimous on all aspects of growing their favourite plant!

**Harvesting seed:** Seed from the previous spring's blossoms will ripen from April to July. As soon as the berry becomes soft to gentle pressure (something like ascertaining when a peach is ready for eating) it is ready for picking. This may be while the berry is still completely green. It is not essential to postpone harvesting until the berries turn colour. Remove the skin, the gelatinous pulp and the enveloping membrane from the seed. Dust lightly with a suitable contact fungicide and store in a ventilated container.

**Planting seed:** I generally commence germinating my seed some two weeks after harvesting. Some growers will do so immediately after harvesting, while others will wait for several months until ambient temperatures rise in spring. The seed is placed between moist sheets of paper towel placed in any suitable container. Follow the same procedure as in primary school when germinating beans! Place the container in a warm spot to stimulate germination. If you are really hasty for results, then invest in a heated germinator specially designed for this purpose.

As soon as the seed begins to germinate, transfer it to the seedbeds. Here I use containers at least 15 – 20 cm deep. The containers are filled with 1:1 mixture of polystyrene pellets (2 – 5 mm diameter) and sifted compost. Compact the substrate slightly, then place the germinating seed on the surface. Cover the seed with about 1 cm of the same mix with a thin layer of coarse sand on top. The sand will prevent the fine mix from being washed out of the container when watering with a hose. If the compost is properly prepared and heats up well during decomposition, most weed seeds and pathogenic fungi will be destroyed. Under these circumstances it is not necessary to fumigate the compost prior to it being used in seedbeds. If, however, you experience damping-off of the young plantlets, then resort to either fumigation or heat-sterilization of the compost or use specially prepared commercial substrates for the purpose. Do not delay transfer of the germinating seed to the seedbed too long, or you will damage the growing radicle (rootlet) or the root hairs which cling to the paper towel.

Keep the seedbeds in a shady place. Keep moist but not wet or soggy.

**The Clivia Calendar** (based on Southern Hemisphere growing conditions)

ACTIVITY	J	F	M	A	M	J	J	A	S	O	N	D
HARVESTING SEED												
GERMINATING SEED												
PLANTING SEED												
PLANTING OUT SEEDLINGS												
POTTING-ON												
DIVIDING AND TRANSPLANTING												
FEEDING												
LOOK OUT FOR PESTS												

(Be active in the orange Coloured months)

**Planting out seedlings:** When the first leaf of the seedlings reaches a length of five to ten cm, transfer the seedlings to individual 15 cm plant pots. I prefer the tapered to the cylindrical design as it is easier to remove the young plant and soil from the pot when potting-on into larger containers. The potting mix should approximate the medium in which Clivias thrive in their natural habitat i.e.. the leaf litter found on the forest floor. My mix consists primarily of garden compost to which some milled pine bark has been added.

Clivias grow slowly and in their natural habitat are subjected to strong competition from other roots for available nutrients. In other words, they do not need a nutrient-rich medium to thrive, but rather a loose, friable medium in which to develop. If your compost heap is not invaded by roots of nearby trees which deplete available nutrients, it will not be necessary to add any slow-release fertilizer to your potting mixture. The nutrients released by the compost being converted into humus will be more than adequate for the growing plant. Many growers swear blind that foliar feeding really stimulates growth – my conviction is that this is entirely imaginary. Young plants can best be grown in dappled shade. Shade cloth with an 80% light-exclusion factor would appear to be the ideal alternative.

**Potting-on:** A year after planting out the seedlings they are ready to be transferred to 17,5 cm (7 inch) pots. At this stage I provide some drainage at the bottom of the pots. Crushed stone or brick is suitable, but heavy. Broken pieces of polystyrene make for less weight, but cinders are ideal in that they are light and provide excellent drainage. It can also be argued that cinders will contain traces of most nutrients (with the obvious exception of nitrogen) to supplement the potting mix in the event of a trace element deficiency.

In the potting-on procedure, disturb the plants as little as possible – hence the usefulness of a tapered pot. If plants are watered prior to transfer they will slip out of the pot more easily.

A further year on, the plants are potted-on to 20 cm (8 inch) pots and again one year later into 25 cm (10-inch pots). Clivias can be flowered in 20 cm pots, but larger plants will respond to the additional space provided by larger pots.

**Dividing and transplanting:** There are many old-wives tales concerning the do's and don'ts of dividing and transplanting Clivias. One of these is that if you disturb a plant in any way it will not flower in the coming spring. Well, I have yet to experience this! Another is that pot-bound plants will flower more profusely than their counterparts having adequate room in their containers. There may be more substance to this claim but after twenty-five years it has escaped my observation!

I believe that- in the warmer parts of the country – Clivias can be divided or transplanted at any time during the year without detrimental results. Given the choice, however, spring and summer are preferable for these operations, as the divided/transplanted plants will establish more quickly.

In the case of a single offset to be removed, disturb the plant as little as possible and gently pull the roots apart. If, however, you are dividing an old well-established plant with many growing points and the plant is pot bound as well, it is a good idea to use a jet of water from a hose to remove all the soil around the root ball, before teasing the roots apart. Where

offshoots are still attached to the mother plant these should be cut off and the cuts dusted with flowers of Sulphur or copper oxychloride before repotting.

## **Soil preparation**

a) **Texture, structure and pH:** Clivias do not like wet feet, hence good drainage is essential. In the preparation of compost, a sandy or sandy-loam soil should be used. More important, however, in ensuring good drainage is an open structure of the growing medium. Adequate compost and milled bark will ensure this. The pH of this mixture should be in the region of 5.5 to 6.5 which approximates that of the leaf litter in the Clivias natural habitat.

b) **Nutrition:** As already mentioned, I do not believe in the feeding of Clivias grown in a compost-rich medium. Where cultivation occurs in sand or milled bark only – where available nutrients are virtually absent or are leached out rapidly as there are few colloids to retain them – feeding is desirable. When fertilizer is added to the growing medium a slow-release formulation such as Osmocote is recommended. Where foliar feeding is resorted to, spring applications should contain more nitrogen to stimulate vegetative growth. During summer the emphasis should be on phosphorus to strengthen growth while late summer applications should concentrate on potassium to stimulate the developing flowers. No feeding is recommended during the dormant winter months. 30:10:10, 18:18:18 and 10:20:30 or similar formulations are suggested for the progressing season.

**Watering:** Liberal watering should commence immediately the plants show signs of life in spring. This should continue throughout the growing season but be curtailed as temperatures drop in late autumn. Many growers discontinue watering completely during the winter months.

Where the texture and structure of the growing medium is ideal there is little danger of overwatering – even during winter. Over-watering of plants growing in a less-than-ideal medium will precipitate root-rot. When this becomes evident remove plants from the soil and permit callus-development after treating with a suitable fungicide before re-potting.

**Diseases:** Damping-off of young seedlings is probably the worst disease to contend with. As mentioned earlier this problem can be eliminated by using a pathogen-free germinating mix. Some plants seem to show a predisposition to fungal attack of the foliage. This problem is best overcome by a strict selection in the breeding programme. No plant is worth constant pampering and treatment – no matter how special it is! Another problem, which may be encountered, is the appearance of rust pustules on the underside of the leaves. This will occur when particularly humid conditions prevail. Improved ventilation will remedy the situation. Treatment of affected plants with a systemic fungicide (e.g. funginex) will prevent spread of the disease but affected leaves will remain unattractive. Occasionally in late summer plants will simply topple over and, on closer examination, will have rotted off at ground level. Only a small percentage of plants will be thus affected and, upon dusting with a suitable fungicide and callusing for a period can be successfully re-potted with minimal setback to the plant.

**Pests:** By far the greatest problem is the amaryllis borer. Several generations of moths will oviposit on the underside of leaves of both young and adult plants per year. If left untreated the larvae will tunnel down in the leaf and in severe infestations completely destroy the corm.

From early October until late April plants should be inspected several times a week. The telltale sign of sub-laminar tunnels indicates immediate treatment with a suitable insecticide (e.g. chlorpirifos or carbaryl). A full cover-spray is essential. Choose an insecticide with low mammalian toxicity, which will degrade rapidly thus limiting pressure on the environment to a minimum. As even light infestations can do considerable cosmetic damage, you have to intercept the borer at an early stage. Many growers apply prophylactic treatments throughout the summer months, but this is superfluous provided the grower is on his toes.

Mealybugs can be a nuisance and disfigure the emerging leaves, as the insects are particularly populous in the leaf sheaths. To ensure that the insecticide (e.g. chlorpirifos or carbaryl) penetrates between the leaves at the base of the plant add a spreading agent, which reduces the surface tension of the spray liquid thus promoting penetration. A repeat treatment some seven to ten days later is recommended.

**Bing Wiese**

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