

INDUCTION PROBLEMS IN CALANDIVA

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Calandiva: a matter of energy?

Nearly 2 years after introducing the Calandiva into the market, the opinion about the product has changed. It was first introduced as just a Kalanchoe with decorative flowers. Now more and more we can say there is Kalanchoe and there is Calandiva, two different crops.

Off course there are still a lot of common characteristics, but the appearance of the flowering part of the plant makes it a different plant. Calandiva needs a longer period to come into flowering, which is due to the fact that the flowerbud is 4-8 times bigger than Kalanchoe buds. Is it wrong to assume that because it takes longer to open, it cost the plant more energy? This is true, but instead of requiring 4-8 times more energy the estimation is actually about 15% more.

Since the need for energy is 15% higher, this causes the plant to be more susceptible to extremes. This could explain some strange reactions we have encountered with the product. Like always a healthy root system is crucial for stress tolerance. But for Calandiva, strong roots are even more crucial than for Kalanchoe. If root system development fails, or is lesser than it should, the will be negative consequences for the growth of the plant. The leaves can be larger because with a sub-optimal root system Nitrogen is absorbed selectively against other nutrients. Flower induction can also be disturbed. We assume that induction starts in the same time period as Kalanchoe, but it takes longer to complete. This cost more energy, so the period of possible disturbances is longer.

Disturbance of flower induction is the most important problem we see in Calandiva culture thus far. It is mainly visible in mid-winter and mid-summer. This demands an explanation. First it was noticed in mid-winter. There were differences from not inducted to fully inducted plants. Mainly this could be seen on the sideshoots from the lower areas of the plant. Off course it can partly be explained by differences in rootsystems or in drier and wetter pots. But that couldn't explain the large difference. The key factor, if you go back to the need for energy, must then be the light level. But also some growers with supplementary light had the problem, so the conclusion was that it had to be the natural light level. If the supplementary light level was high enough, over 3800 lux, there were no problems, so that could compensate for the lack of natural light.

Later it was also visible in the high summer period. Although the difference between induction were not as big as in the winter, it was still between just inducted and fully inducted. The side shoots from the lower parts were better and further inducted then the top of the plant. Off course it couldn't be a problem now of the natural light level. So what was it then? Well, the key factor now was the heat.

So the theory is as follows.

Some of the Calandiva varieties are sensitive for extremes and stress. This has to do with the need for energy.

The key factors are lack of natural light and excess heat.

Secondary factors like irrigation, spraying and fertilizers may also play a role.

