

BREEDING BUSINESS

November 2023



2 Growing tips
Cymbidium

4 Camera-
controlled sorting

6 Growing tips
Phalaenopsis

10 Quick Plug
results



Floricultura
ORCHIDACEAE & ARACEAE



Cymbidium autumn

in the northern hemisphere

Plants intended to bloom before 1 November 2024, both cut flowers and pot plants, must be in place before Christmas. Any delay beyond this date will have negative consequences for production that season, which can easily reach losses of 20%.

The same principle applies to the range intended to bloom in December 2024, i.e. before Christmas. These plants must be in place before mid-February 2024. The average daily temperature required is 12.5 °C; 10 to 11 °C at night, and 13 to 15 °C during the day. If there are a few days of severe frost, the temperature can be temporarily lowered by 2 or 3 °C. Any longer term exposure to temperatures that are too low causes loss of production. This has been shown by research with averages of 7 °C.

The plant load is high on plants that flower too late before Christmas, as there is not enough light during this period and insufficient assimilates are produced for the crop to maintain itself. If too many branches remain on the plant and their harvest is delayed, these branches will obstruct the little remaining light. As a result, the plants become excessively depleted, and root quality deteriorates. This in turn leads to delayed and slower plant recovery, making it challenging to get them to bloom in time for the next season. For this reason, it's best to remove overripe branches.

In the case of cut flowers, it certainly doesn't hurt to remove unhealthy plants, plants infected with viruses, and plants with a lot of scale insects. It's important to do this neatly and carefully. Put these plants in a bag, and do not drag them through the crop. Wash your hands or wear different gloves to prevent virus transmission! This keeps the plant stock healthy and vital.

Late range

At the moment, the late-flowering range can still be kept at an average 24-hour temperature of 21 °C to prevent flowering in spring 2024. This also encourages the young shoots to develop properly before flowering in spring 2025.

If this approach is unfeasible due to energy costs, flowering will occur earlier. The growth and development of young shoots will also be delayed, which will then have adverse consequences for production in spring 2025.

Finally, pay attention to the EC of the drain water. The plants can still absorb a lot of nutrition. The EC of the irrigation water can be reduced 1 or 2 weeks before the temperature is to be lowered.

Any longer term exposure to temperatures that are too low causes loss of production. This has been shown by research with averages of 7 °C.

Camera-controlled sorting

After several months of thorough testing, Floricultura has started using camera-controlled orchid sorters. We managed this unique achievement for young Phalaenopsis plants in a collaboration with builder ISO Group.





Employee places the trays with young plants ready for the orchid sorter.

These machines have enhanced our sorting quality considerably, and led to big improvements in fulfilling Phalaenopsis orders with plants of the correct uniformity, quality, and age. From week 50, the entire production of young plants will be delivered sorted in plug in Heemskerk, and also shipped in the Quick Plug.

The advanced components used in the system enable accurate, fast sorting. The trays with cups containing the young plants are first placed on the infeed. The plants are then lifted from the tray by a robot arm with suction cups, and placed on the chain conveyor. They then pass through the vision component, which uses 7 cameras to rapidly scan the leaf surface and determine in which unit the plant should be placed. The cup is then placed in the relevant unit with a robot arm in accordance with the specifications.

Floricultura is confident that this new technology will help our customers. We use data to deliver in the ideal size, which in turn leads to the highest branch percentages for you. We will continue with the current 50-hole tray for the time being. Young plants receive more light and air than in a 60-hole tray, which benefits their quality and uniformity.

Phalaenopsis autumn

in the northern hemisphere



The days are getting shorter, with less light intensity. Basically, it's time to turn on the grow lights. Try to use as much natural light as possible during the day. Screening sunlight is no longer necessary from now until early January.





Don't turn on the grow lights too early. Approximately 9 or 10 hours after Phalaenopsis receives light, the photosynthetic efficiency decreases, depending on the amount of light the plants have had.

In the winter, the natural light is still at a reasonable level between 10:00 and 14:00. Plants thrive best if they are illuminated between 06:00 and 15:00. If possible, turn off half of the lights on sunny days. If the light sum achieved is 5.5 moles at 15:00, 50% lighting works very well and energy is saved. The lighting can be turned off at 18:00, giving a day length of 14 hours.

In stage 2 of cultivation, you can decide to reduce the day length to 12 hours 8 weeks before cooling. This means that the daylight sum will be lower. A shorter day length, despite a lower light sum, promotes good shoot formation during cooling. When using LED lighting, be careful that the plant temperature does not become too

low. In addition, check the pots to ensure they are sufficiently dry during the next watering, as they will dry out more slowly.

Increase the tube temperature during the early cultivation stage in good time, and close screens before turning off the lamps to prevent the temperature dropping. This temperature drop triggers the formation of side shoots. Do not vent during temporary higher temperature. Allow the pipe temperature to drop slowly to avoid wasting energy. Rapid temperature changes waste particularly large amounts of energy.

Fertilisation

From now on, you can adjust the fertilisation by adding slightly less nitrogen. Example: with 1 EC and a dose of 14 or 15 mmol/l, a reduction of 1 to 2 mmol/l is quite reasonable for the period 1 November to mid-January. You can then revert to the normal dosage.

Make sure the
water temperature
is always at least
20 °C.

Make sure the water temperature is always at least 20 °C. In winter, the pots will dry faster. For this reason, it's better to reduce the EC by another 0.1 until the end of January.

Also pay attention to the colour of the roots. If the EC in the pot becomes too high (EC of the drain water > 1.3), yellow-brown spots will appear on the roots. If the EC becomes even higher, they will turn brown. In this case, reduce the EC of the irrigation water by 0.1 or 0.2 EC. If the EC drain water remains too high, irrigate with around 50% of the normal dose with nutrients, followed by 50% pure water.

Screening

There's no need to screen against too much radiation until January. However, transparent screens should be closed during the early cultivation stage to save energy. For the same reason, transparent screens can also be closed during cooling and the later stages of cultivation if the outside temperatures drops lower than 10 to 12 °C.

The greenhouse roof, especially if made of glass, will work as a condenser in severe cold or heavy winter rain. When using one or more screens, the temperature difference between the area above the screen and the cultivation area can become so great that moisture is removed via condensation against the greenhouse roof. In winter, the pots will dry much faster.

Make sure that not all screens are closed if snow falls. Clean the roof with heating, and if necessary use the lighting (SON-T) as an additional heat source. Even though this implies extra energy costs, it's much cheaper than the consequences of the weight of snow causing a greenhouse roof to collapse.



Quick plug

gives excellent results

We are pleased to inform you that our transition to Quick Plug is going very well. The Phalaenopsis plant material is more vital immediately after transplanting and shows rapid and good root development.

Very good results

At the beginning of week 28 of 2023, we started transplanting in Quick Plug. The start goes better than before and ensures that we make a plant that is healthier, stronger and more uniform, especially after sorting!



Plant 8 weeks after transplanting.

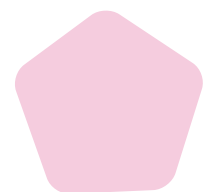


Plant 20 weeks after transplanting.

We tested the Quick Plug for more than 8 months and saw positive signs right from the very beginning. Now, after many thorough checks and inspections, we can conclude that the Quick Plug gives good results. Within a few weeks of transplanting, the young plant is already extremely well rooted with a larger volume and the roots develop more and faster. You can expect the first deliveries of young plants in a Quick Plug around the turn of the year.

Come and see the quality

Seeing is believing! So make an appointment with one of our account managers. They will be happy to take you around the greenhouse in Heemskerk to show you those young plants in Quick Plug. Their contact details are on [this page](#).





Visit us at the Trade Fair in Aalsmeer

Stand 5.22

7 - 9
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