

Funky Crop Report, Week #20

Holland, May 19th, 2005

It is clear again this year that May is a difficult time for climate control. Cold, bright days with high radiation are quickly followed by mild spring weather. With such changeable weather, we often are too late with changing the settings. It is too warm and humid or we are venting too much.

When the outside temperature is low (<12/13°C), we prefer a climate that is a little too warm and humid. As long as the outside conditions are not good, we have to create good growing conditions ourselves. Be careful with venting after clear, cold nights in order to prevent cold heads. Crack the vents early when it is mild but do not truly vent until it is warmer than 15°C outside.

In addition to venting, the minimum pipe temperature is a point of discussion every day. Although a minimum pipe uses much energy, a pipe temperature of 35 to 45°C is a must under changeable weather conditions. This will prevent a chilly and stagnant climate lower in the crop after the sun has disappeared temporarily.

The pipe temperature can be quickly reduced to 35°C as soon as the sun appears again by having a negative influence on light. Start at 200 Watt and have the full reduction at 400 Watt.

The minimum pipe is not a point of discussion with stable weather conditions. When sunny, no minimum pipe is needed after ten o'clock in the morning. Then during dark and cold weather the pipes will be warm to keep temperature in the greenhouse.

Reasons for a minimum pipe are:

- Stimulate transpiration, mainly by creating air circulation
- Avoiding large temperature fluctuations under changeable weather conditions
- To empty the heat storage, especially in the summer when the nights are warm enough
- CO₂ dosing if there is little or no buffer capacity.

Topical reminders for Funky:

- Shade during the first sunny and dry days to avoid sunburn. Consider irradiance levels in excess of 700 Watt. Growers with greenhouses in an east-west orientation have to pay particular attention.
- The crops are now 1.50 to 1.80 m tall; full-grown in other words. Irrigation should be at least 3 cc per Joule.
- Under sunny conditions with a dry wind this can easily be increased to 3.5 to 4 cc per Joule.