

GROWING IN SUMMER

Although, as we know all too well, the weather here in the UK in summer is unpredictable, we can still expect to get some pleasant sunny days interrupting the rain. For indoor growers, such BBQ conditions can be hazardous, and we have to assume these warmer days will occur frequently and take the necessary precautions.

Temperature

For healthy plant growth, ideally the temperature in your growing area will remain between 23-28°C. You must bear in mind that as the temperature outside soars, you will also have to contend with the extra heat produced by your grow lights.

How to Monitor the Temperature

To monitor the air temperature in your grow room you should use a [thermometer](#). We sell a model which records both the highest and lowest temperatures reached throughout the course of the day. With this, you will be able to note any sharp changes in your growing environment that might adversely affect the health of your plants. If, for example, you were only to take readings in the morning or evening, you would miss the peak temperature at midday. Tip: It is recommended that you position the thermometer out of direct light.

Humidity

High temperatures often cause low humidity. To measure the humidity in your growing area you will need a [hygrometer](#). The model we sell also records the maximum and minimum temperatures. Note: If the humidity drops below 50%, the roots of your plants might stop taking up nutrients and absorb only water. This can cause the tips of the leaves to turn brown and curl, which - in turn - can affect your yield. The ideal relative humidity is between 50-70%. One way to achieve this is by investing in a humidifier.

Please note: If your humidity gets too high your Carbon filter may stop working.

Problems associated with High Temperature

If the temperature of your grow room is too high, you may experience some of the following problems:

- Lower Yields
- Stretched plants
- Spindly flowers
- Poor fruit quality
- Poor root development
- Internal cell damage
- Increased pest infestation

- Smaller sized fruit
- Internal cell damage
- Unhealthy looking plants

Indoor Grow Lights

As previously mentioned, your grow lights generate a lot of heat themselves, and will not make the situation any easier to cope with. To combat this, many growers change their light cycle so their lights come on in the evening and run throughout the night. This helps because the outside temperature is lower at night, and the intake fan will be pulling in cooler air. Another bonus is that the extreme heat of midday is avoided.

Another option many choose is to lower the wattage of their lights. Obviously, this results in lower yields, but so will an over-heated environment.

If you are using a number of grow lights, cutting the number of lights you have in your grow room may be the only thing that will make it the heat manageable.

There is also the option of using air-cooled lighting systems incorporating the [Aerowing](#) reflector or the [Cool-shade](#). These lights help remove the heat produced by the light bulb. They have a sealed glass casing and a fan is positioned to extract the air around your lamp through the reflector.

The Most Important Factor

AIRFLOW!!!!

It is vital to assure there is adequate air exchange in your grow room. If you keep the air moving, with fresh air joining the warm air, you can avoid both heat build-up and dropping temperatures.

It is essential to remove hot air from your grow room. This is where an extractor fan comes in, such as the [Systemair RVK](#). You should always position the extractor fan at the top of grow room, as heat rises. While you are getting rid of the hot air, you need to pump cooler, CO2-rich air into the room. This is achieved using a less powerful RVK to bring in the fresh, cooler air.

The more lights you have in your grow room, the more powerful fan you will need. So if you decide to increase your total wattage of lights, remember to increase your fan extraction. If you are growing in a tent, the hot air that has been extracted needs to be removed from the room where the tent is situated.

One way of controlling your temperature is by using a fan speed controller. We stock the [Primair](#) and [SMS Twin Fan Controller](#), both of which balance the intake and out-take fans and incorporate a thermostatic device which monitors the temperature.

You can find more information on Ventilation by visiting our [Information page](#).

Your Nutrient Solution Temperature

The root zone should remain at between 18-21°C. With rising summer temperatures, this can be hard to achieve. You should attempt to keep the temperature of your nutrient

solution below 25°C. Any hotter than this and the nutrient uptake and oxygen content of the water may be affected. If you have a nutrient tank you can try covering it with white/black/white sheeting to keep the heat out. To keep your oxygen content high you can use an air pump, air stone or the [Hydor Ario Turbo](#). These come in a range of sizes. Our [Nutrient Thermometer](#) is a vital tool for measuring the nutrient solution temperature.

Pest Control

Pests such as spidermites and thrips reproduce rapidly in hot, dry conditions so you have to act quickly. As a preventative measure, try spraying your plants with [Plant Vitality Plus](#). In those hotter months, regularly inspect your plants thoroughly, paying special attention to the undersides of the leaves. Having [Sticky Insect Traps](#) in your grow room will help alert you to many unwanted visitors.

For any further information please visit www.3ch.co.uk or phone one of our stores today.

Please visit our hydroponic information page by [clicking here](#).