

Improving strawberry quality in hydroponic production

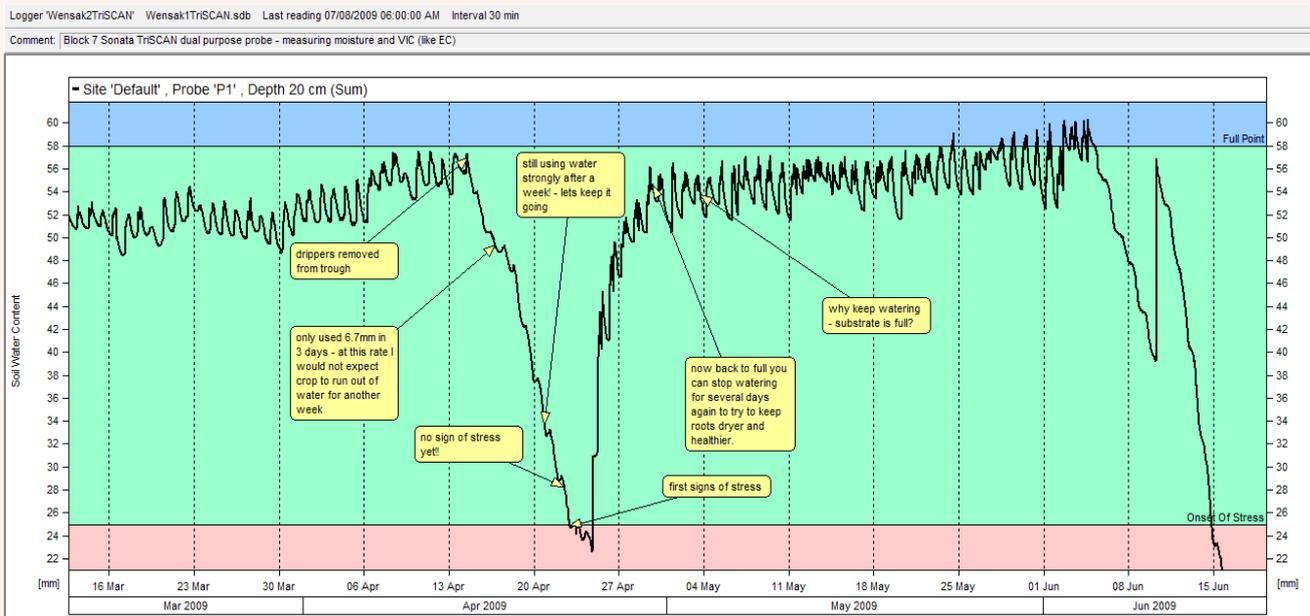
In the United Kingdom and East Africa, much research has been done to develop a standard way of irrigating hydroponic crops such as strawberries.

Growbag strawberries are often irrigated up to 16 times per day. If the bags are allowed to dry out at selected times, the plants can grow quite well, even in full pick, for quite a few days without any signs of stomatal closing. Sentek's EasyAG probes are producing excellent results in effective water management.

Strawberries taste better and have better shelf life when grown with correct water management.

How EasyAG probes are being used

The probes are inserted horizontally into troughs, bags and pots. The EasyAG probes are big enough not to be disturbed by normal activities and can include 3 or 5 sensors in one bag. This makes it very easy to determine whether one part of the bag is drying out unevenly, and how uniformly the substrate is being wetted again. The approach is to allow the substrate to dry at specific growth stages to enhance fruit quality. Using this method, it is vital that an efficient irrigation system is used to re-wet the bags once they have dried. Peat is especially difficult to re-wet, but small pulsed irrigations with little run-off is possible.



Example of over-watering

The graph shows water content from a 3 sensor EasyAG inserted horizontally in a strawberry trough. Irrigations were applied several times per day until drippers were removed on April 14 during full pick. The crop dried for 8 days until the first sign of wilt appeared. Two days later the irrigation was restarted and quickly the bag was back to full. The daily water use actually increases as the bag dries, demonstrating the impact of too much water on crop growth.