The underestimated importance of climate screens and controlled vertical air movement through the canopy, for more active, more healthy and more sustainable softfruit crops

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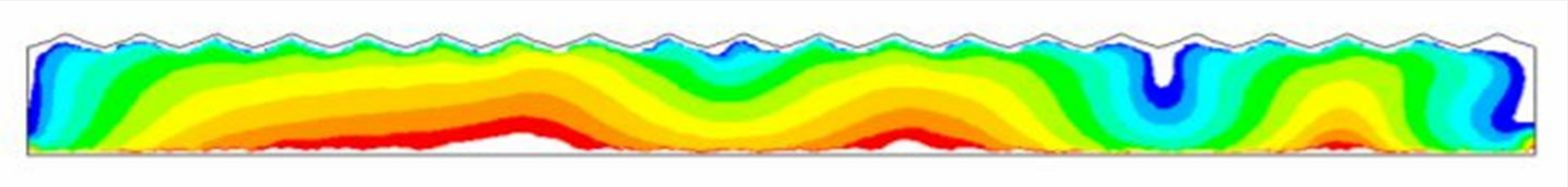
Svensson – a Plant Empowerment Implementation Partner

IMPLEMENTATION PARTNER
PLANT EMPOWERMENT


Every memorable presentation needs a kitten!

Back to softfruit!

Priority 1: Horizontal and vertical evenness!



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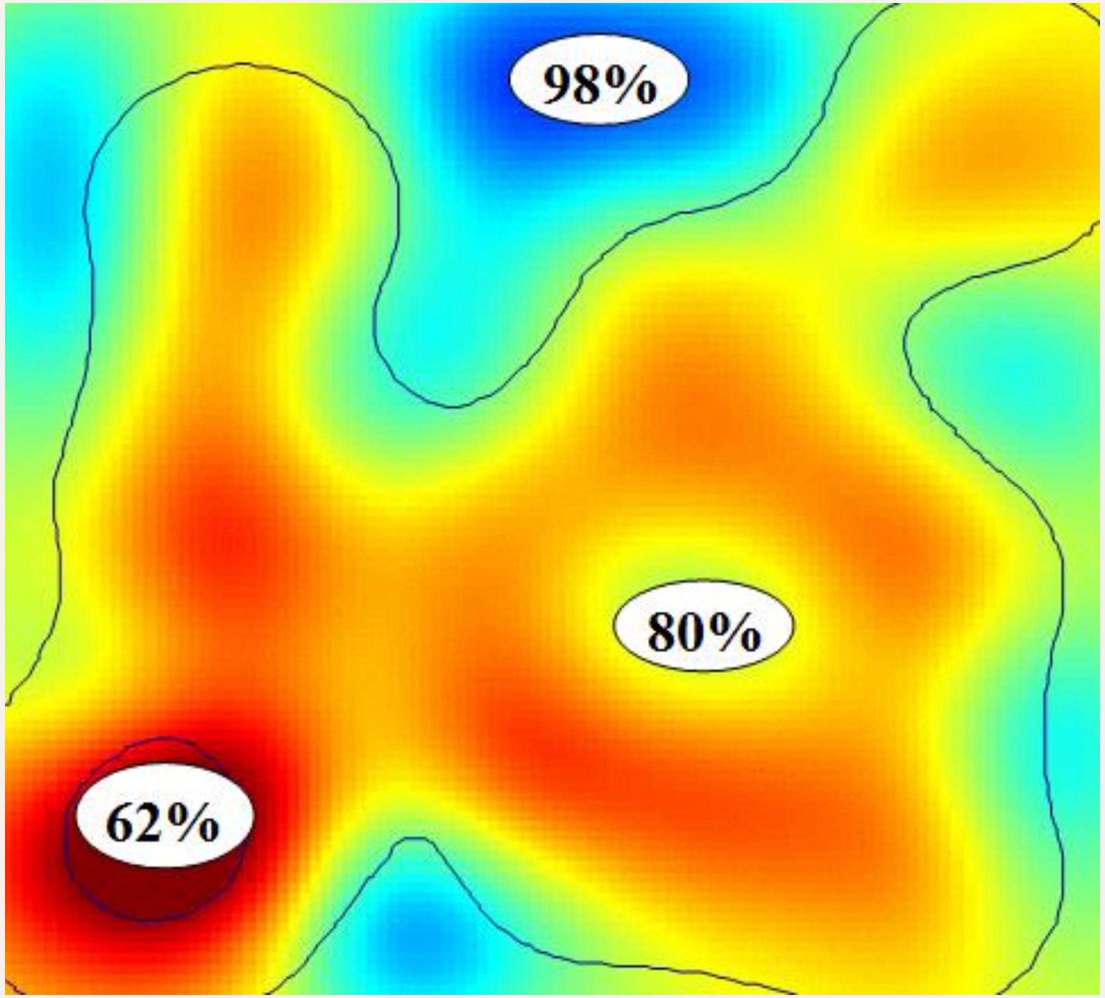
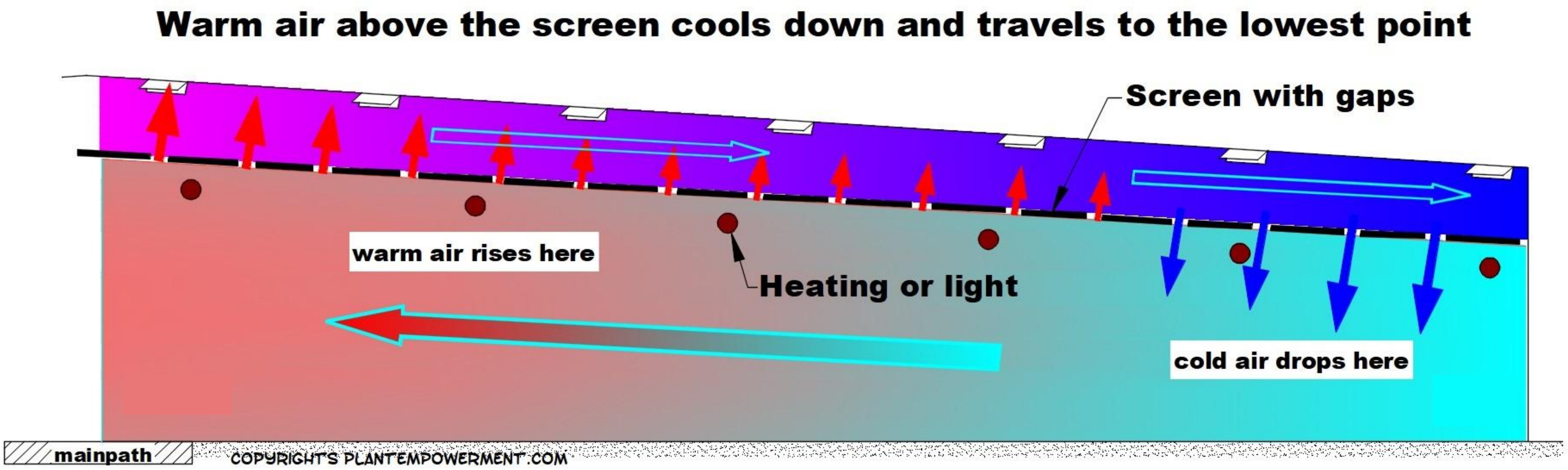


STOP WITH SCREEN GAPS!



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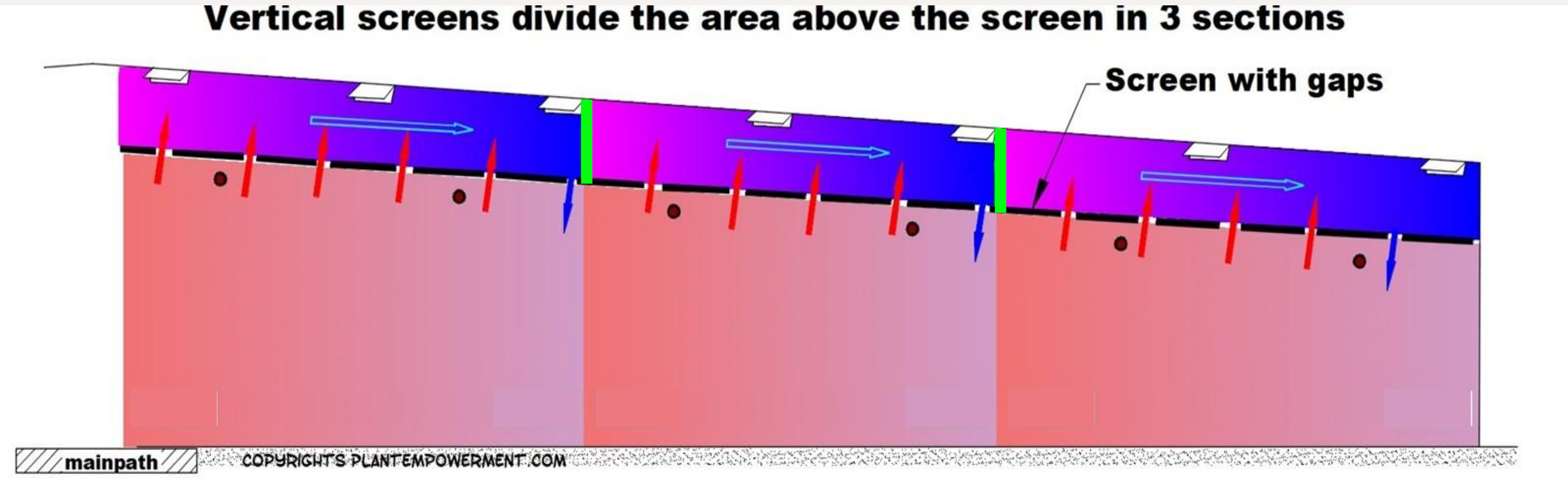

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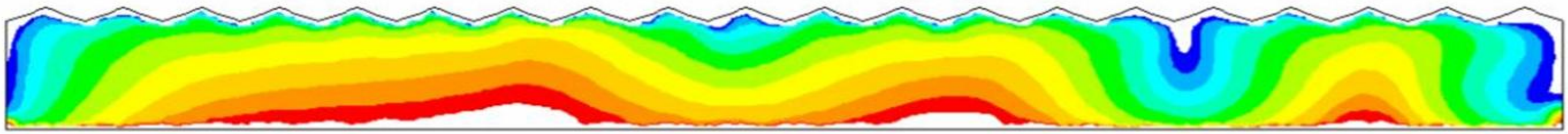
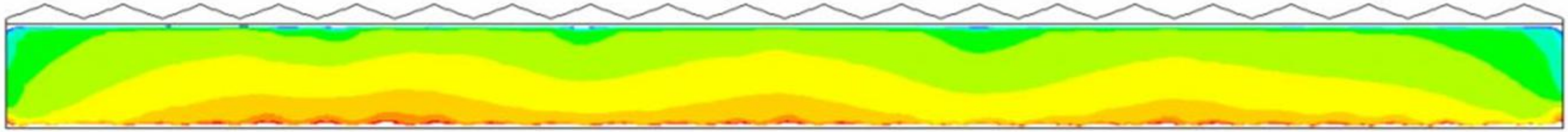
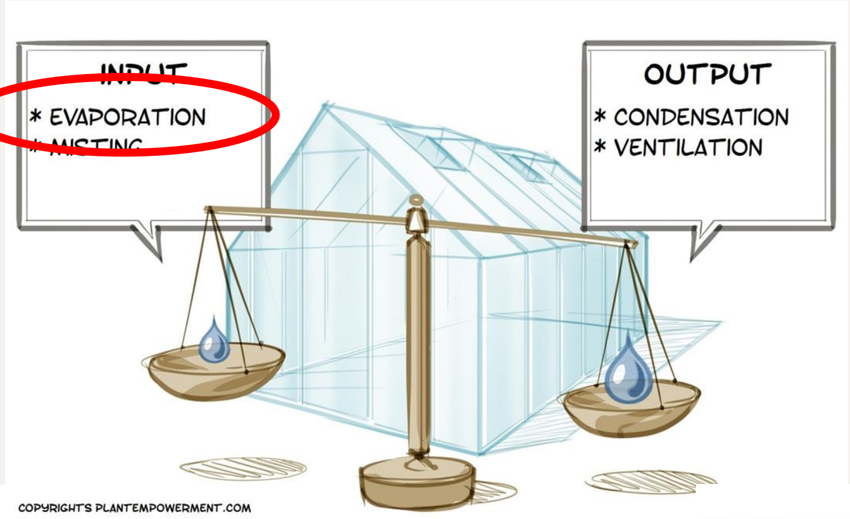


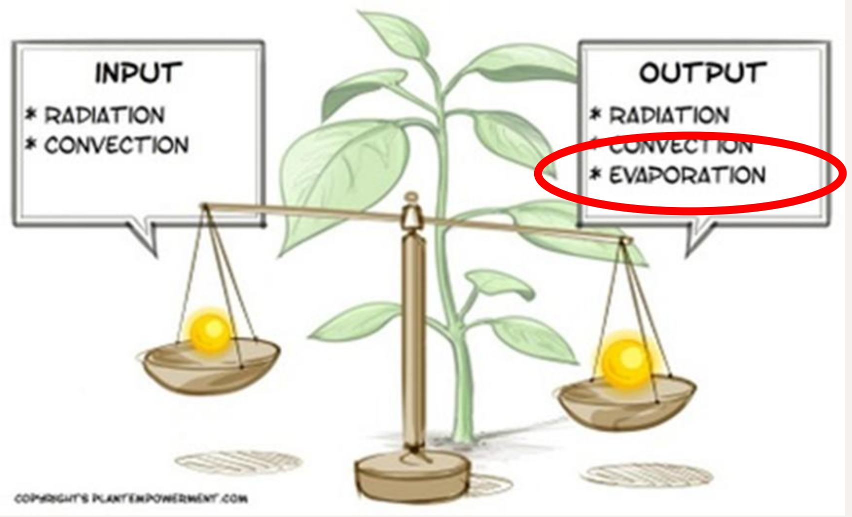
A



B

What is an active greenhouse climate?





Water balance plant and 2 types of evaporation

Radiation evaporation

Convective evaporation

Active climate (& plant)

Evaporation

=

Radiation
(sun, lights, heating)

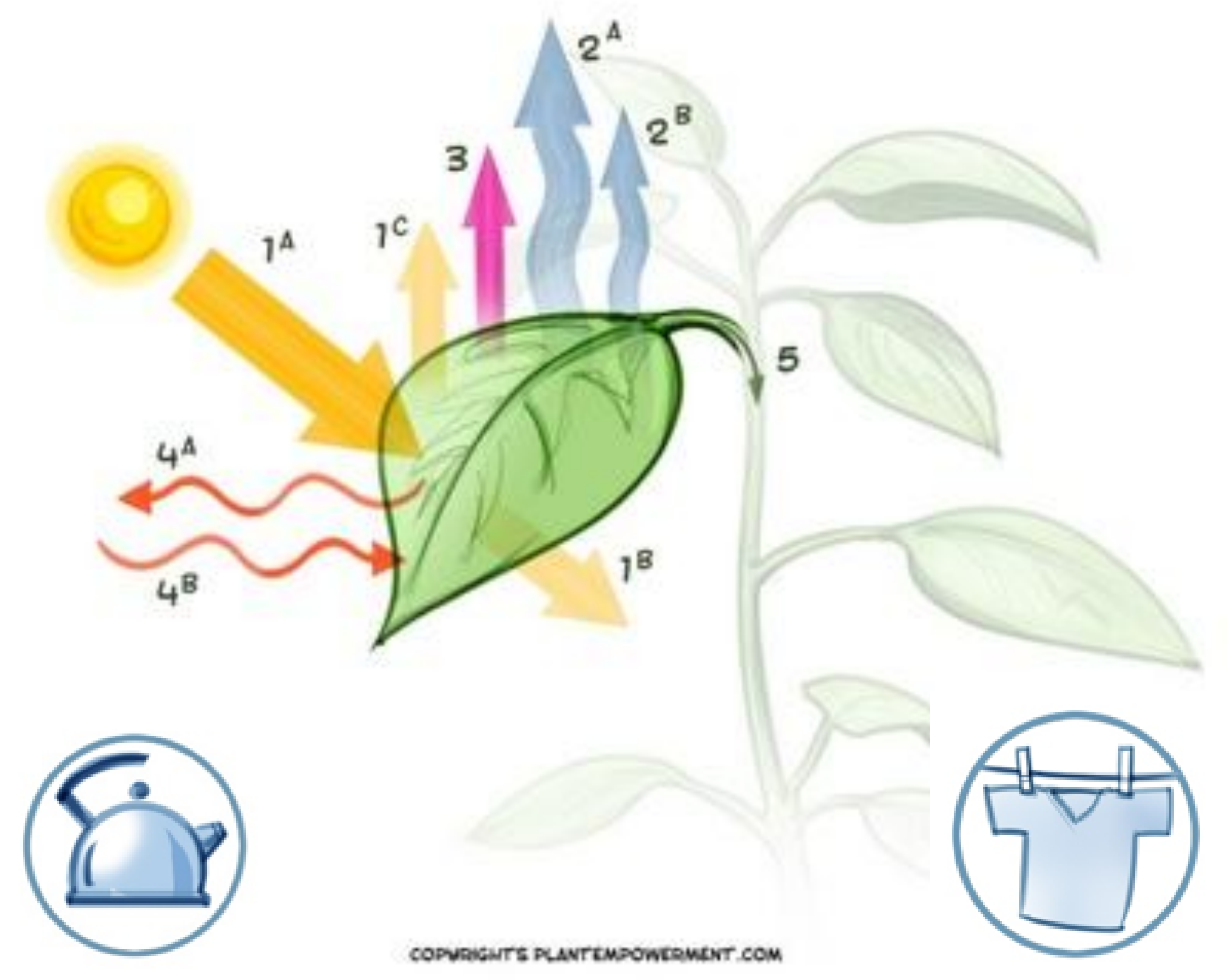
+ or -

Convection

-

Radiation
(heat emission)

Energy Balance Leaf



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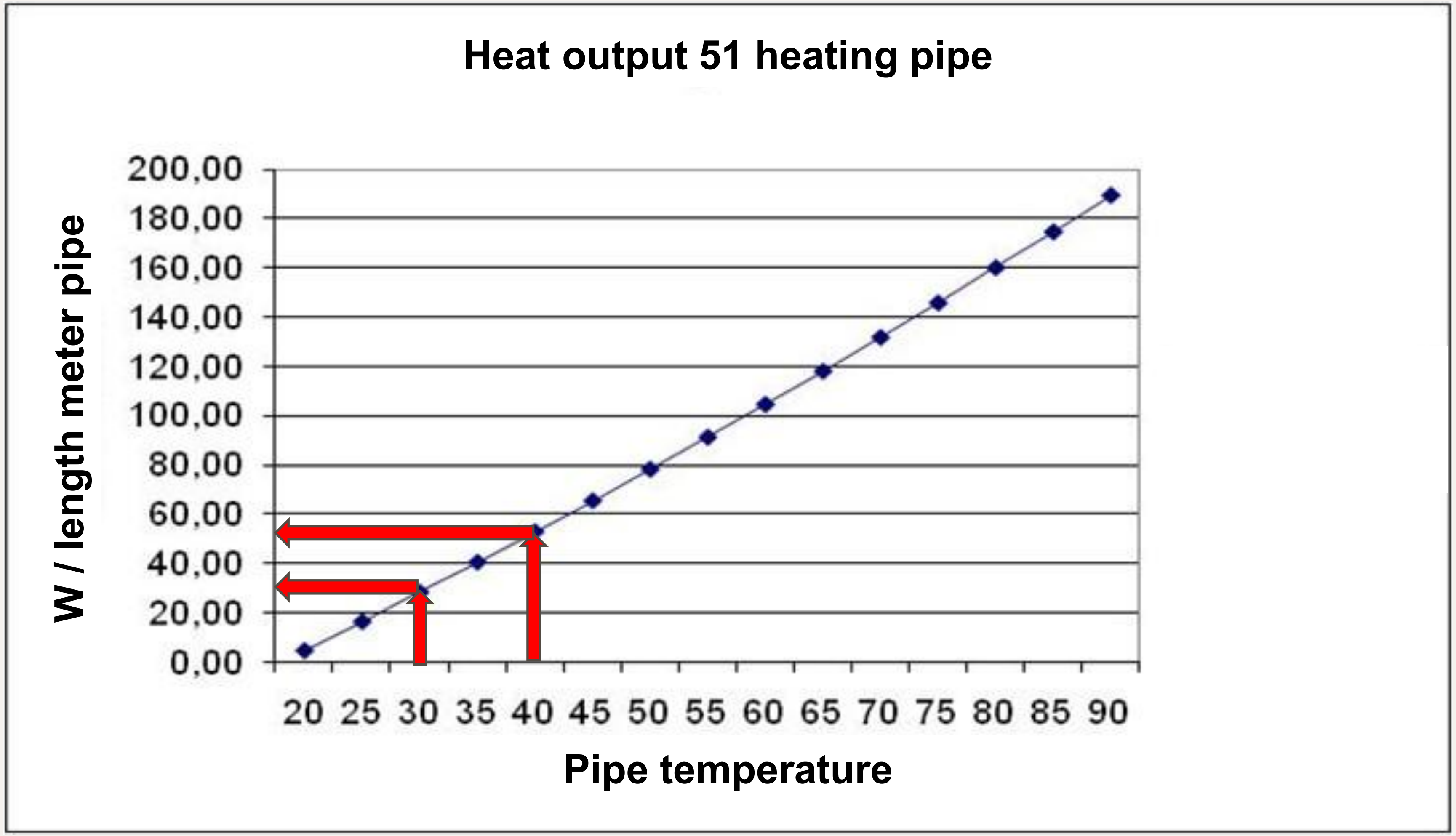
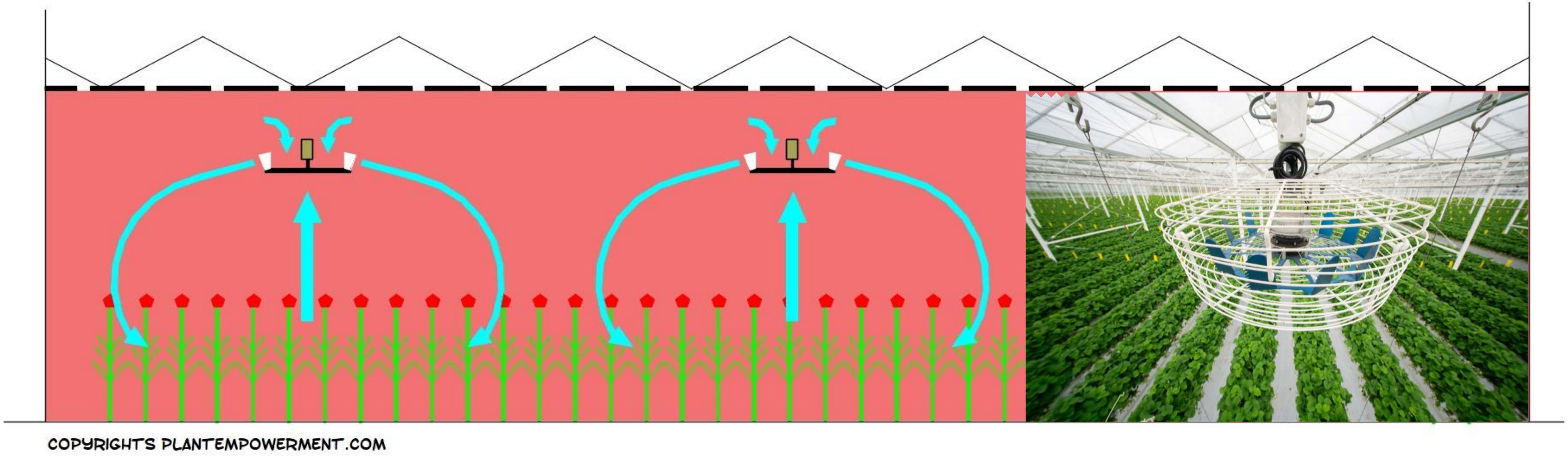
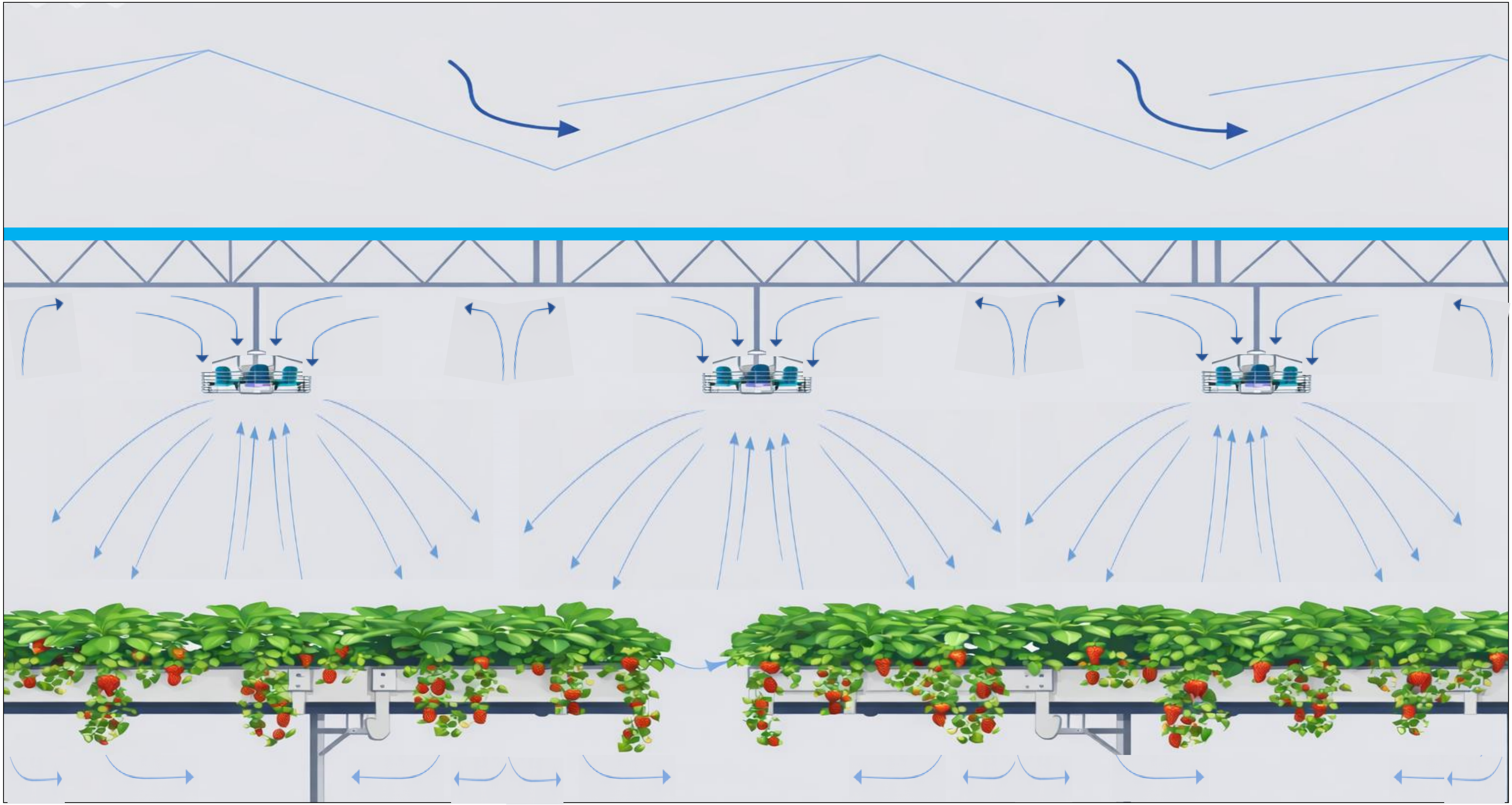
Active climate with the “minimum pipe” temperature?



Back to the water balance of the plant….

Keep your climate & crop active: vertical air movement!





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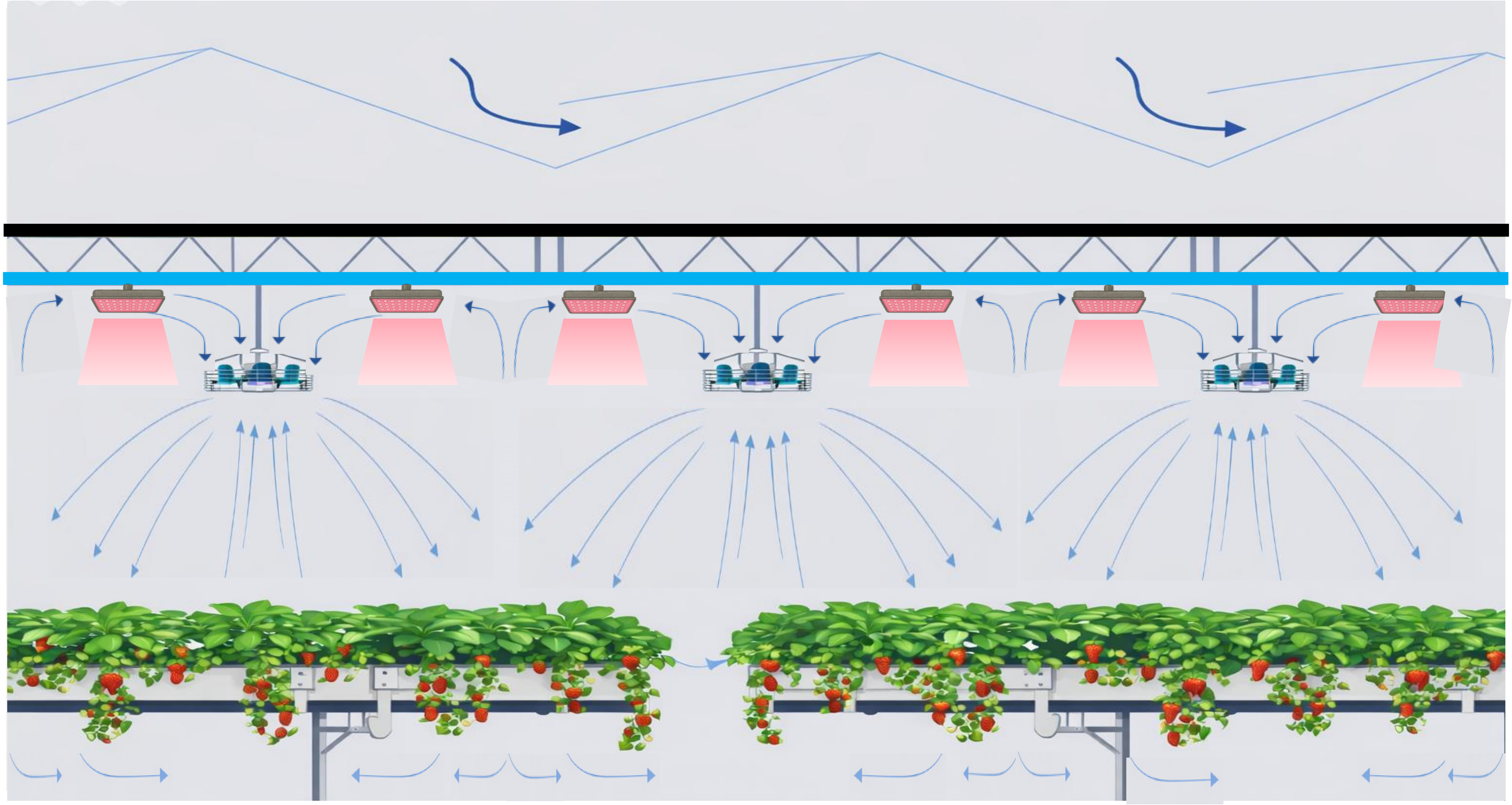
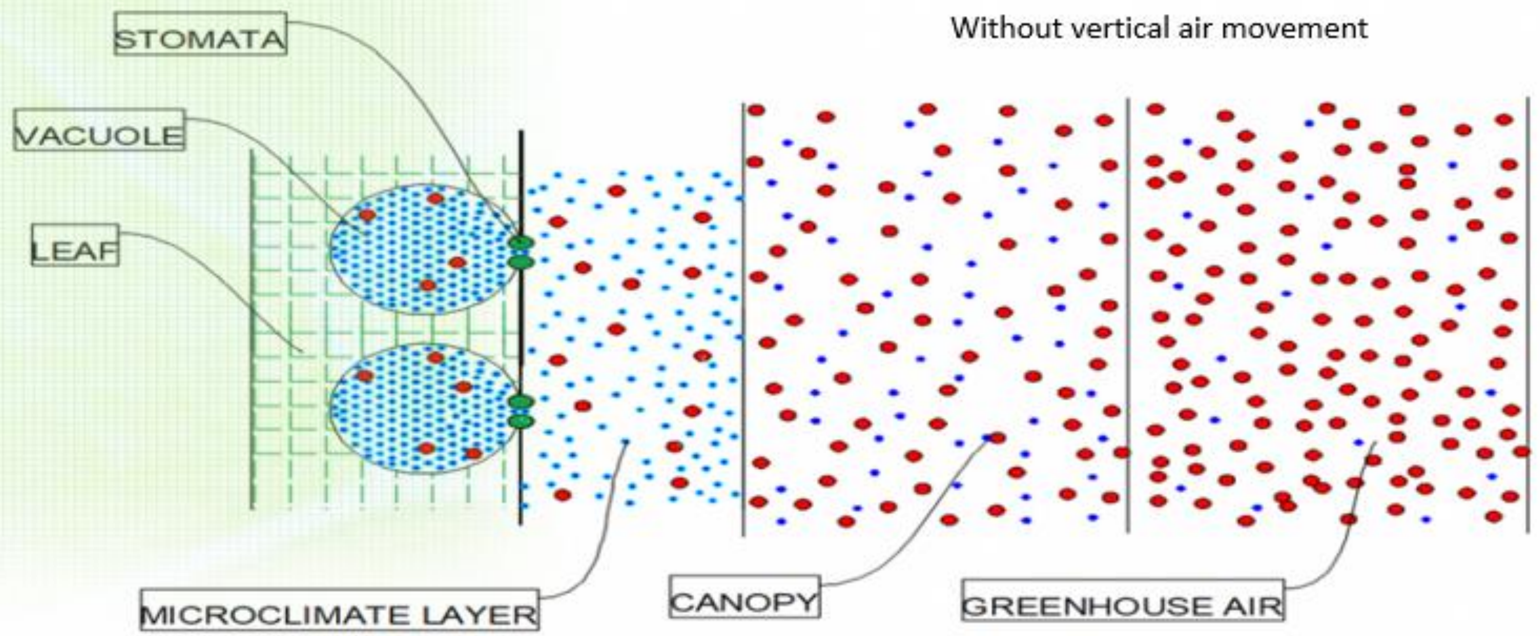



ClimaFlow Smoke Test


ClimaFlow Smoke Test


Without vertical air movement
STOMATA
VACUOLE
LEAF
MICROCLIMATE LAYER
CANOPY
GREENHOUSE AIR

Beyond the boundary: a new road to improve photosynthesis by wind

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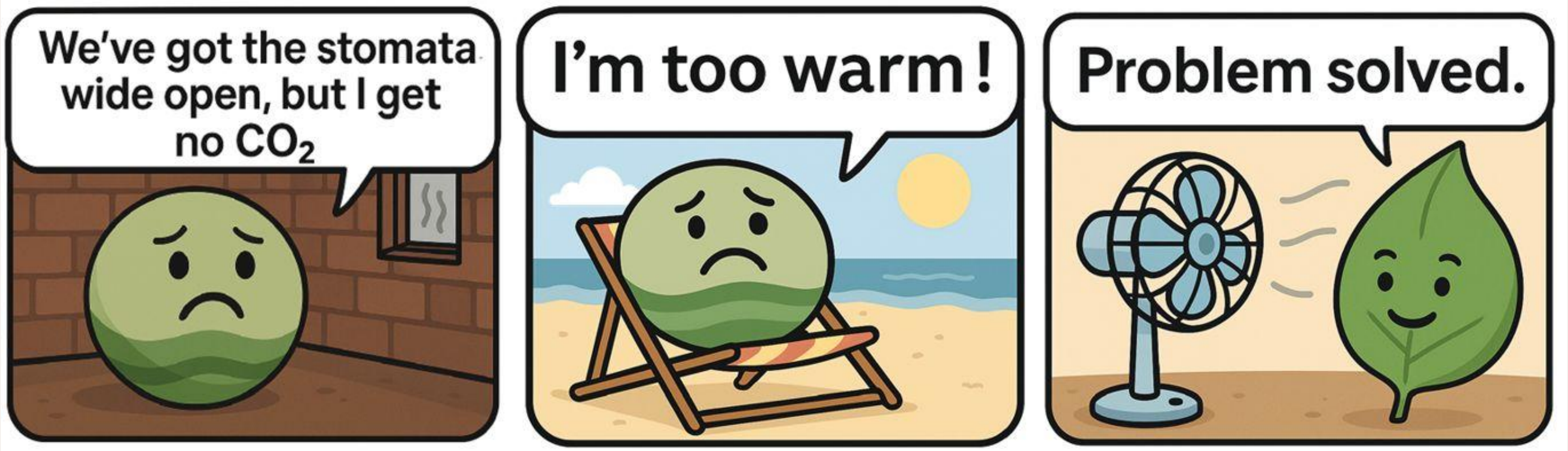
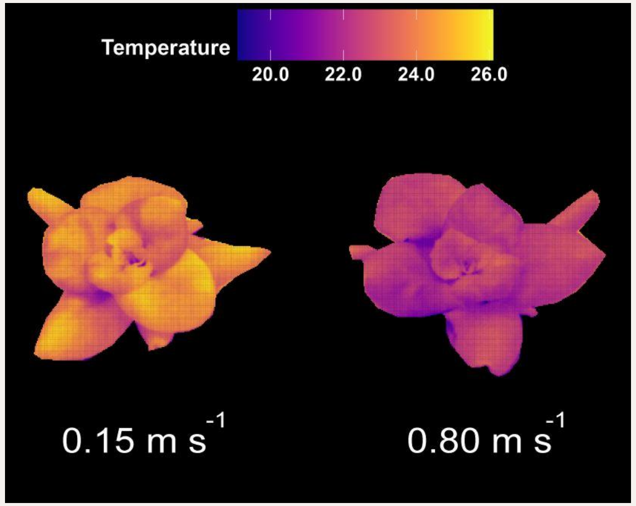
Abstract

Plants interact with their microclimate, simultaneously responding to and influencing it. A key element in this interaction is the leaf boundary layer: a stagnant air layer enveloping the leaf, creating a resistance to heat





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Conclusions:

- Stop with screen gaps!
  - For a more homogenous horizontal and vertical climate

- Keep your climate and crop active!
  - Create sufficient vertical air movement
  - Stimulate evaporation and improve CO2 uptake
  - Keep your crop healthy

More sustainable production with less energy input

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14.15-15.15 Conference Session 3

14.15-14.35

Rubin: A new future for raspberries

Hans Puijk | Owner PuijkFruit/Brightberries in cooperation with Fruitmasters

14.35-14.55

Energy-saving strategies for early-season strawberry production

Stef Laurijssen | Researcher, Research Centre Hoogstraten

14.55-15.15

Maximizing blackberry greenhouse production with limited fossil resources: is it possible?

Pim Kleeven | Researcher soft fruit, Delphy ISFC

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Meet the Experts!

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