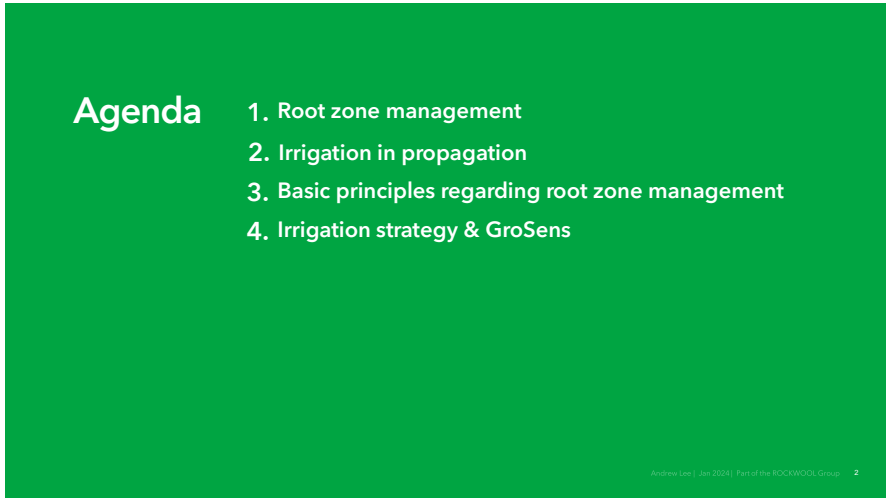




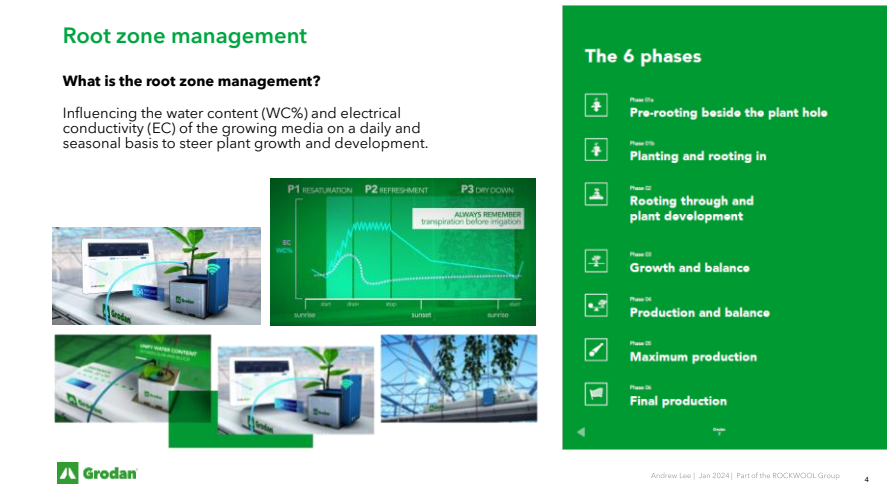
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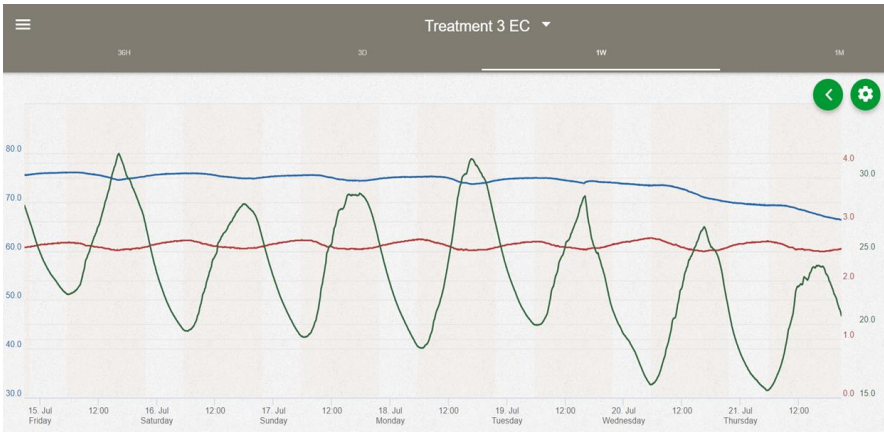
Irrigation in propagation



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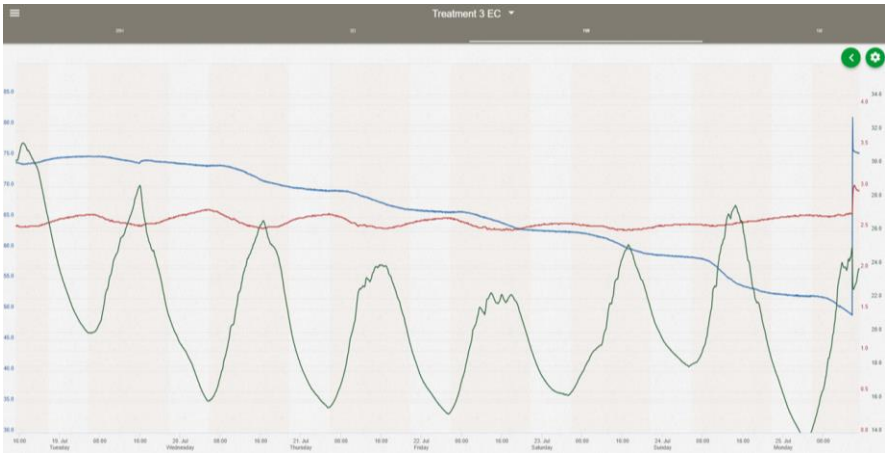
Transplanting date: 7<sup>th</sup> of July - no irrigation until 25<sup>th</sup> of July 2023



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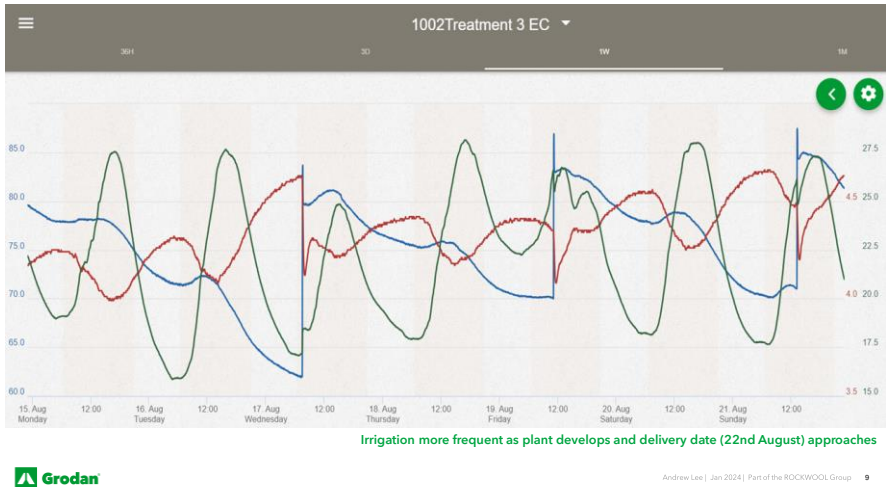


Generative / Vegetative steering depending on extremes

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Basic principles regarding root zone management

	Generative	Vegetative	Range / Tomato	Strawberry
Start time rel. sunrise	Later	Earlier	4.0 - 1.0 hrs	
Stop time rel. sunset	Earlier	Later	5.0 - 1.0 hrs	
EC drip mS/cm	Higher	Lower	4.0 - 2.8	3.0 – 1.8
EC slab mS/cm	Higher	Lower	8.0 - 3.5	4.5 – 2.5
Irrigation volume %	Higher	Lower	6.0 - 3.0	
Irrigation frequency / hr	Lower	Higher	2.0 - 6.0	
Decrease WC% overnight	Higher	Lower	12.0 - 6.0	4.0 – 8.0



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Basic principles regarding root zone management



	Volume l m <sup>2</sup>	Growing media response
Optimum	7.5 - 9.0	Steerable in WC & EC
Minimum	≤6.0	Growing media is leading
Maximum	≥12	Too slow reaction



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Basic principles regarding root zone management

l/hr	ml/min	Growing media response
1	17	Re-saturation
2	34	
3	51	
4	68	Refreshment

Irrigation dripper capacity

**Grodan advice**  
3 l/hr tomato & cucumber  
2 l/hr pepper & strawberry due to higher dripper density m<sup>2</sup>



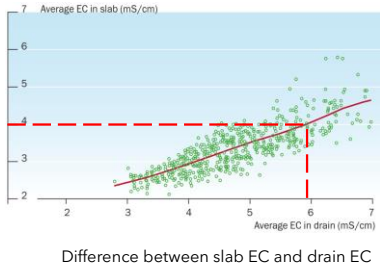
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Basic principles regarding root zone management

- Drain is not our goal!
- Drain EC will be higher than slab EC, especially at low drain volumes
- Know this so you take the correct actions with the irrigation EC
- Especially with a lower energy input the EC of the irrigation solution will need to be high
- With a limited irrigation volume this will provide enough 'food' for plant growth & development

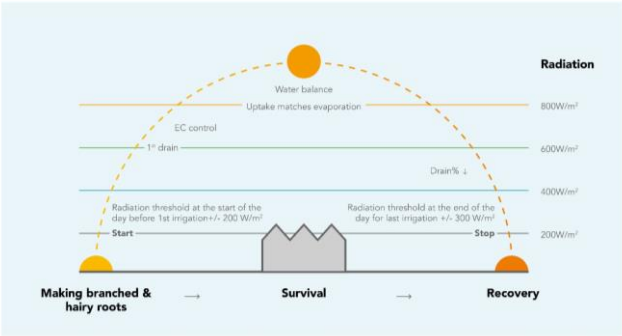


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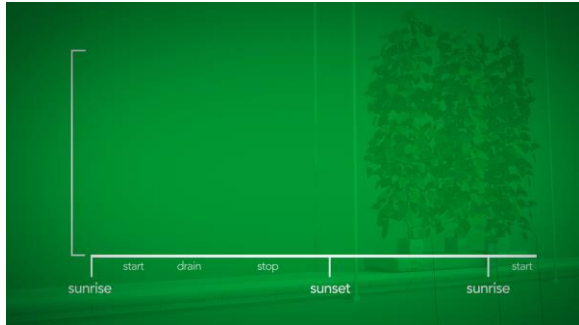
4. Irrigation strategy & GroSens

Irrigation strategy



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High-tech strawberries irrigation



Same way of thinking in tomato growing

- Protecting root quality
- Protecting plant quality
- Protecting fruit quality
- Enhancing production

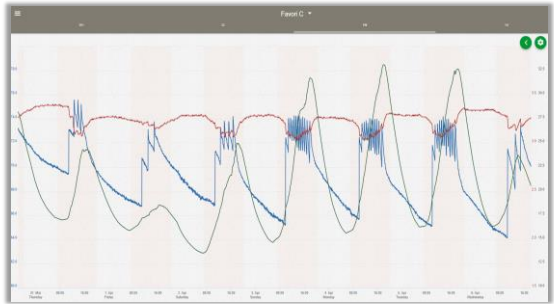
Grodan

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Results of focused irrigation strategy

- Structure accounts for variation in day length, crop growth, outside light and light intensity
- Stability of WC and EC in the root zone is key



Grodan

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