



Nick Field
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Priva – a very brief history!

- **Climate Control**
- ~~Heaters~~
- **Water Management**



A water droplet is shown falling from the top center of the frame. As it falls, it creates a series of concentric ripples in the water below. The Earth is depicted as the reflection of the droplet in the water, positioned directly beneath the falling droplet. The background is a solid, vibrant blue color.

Priva Water Solutions

**Safe and cost conscious irrigation
creates growth for crop and company**



CREATING A CLIMATE FOR GROWTH

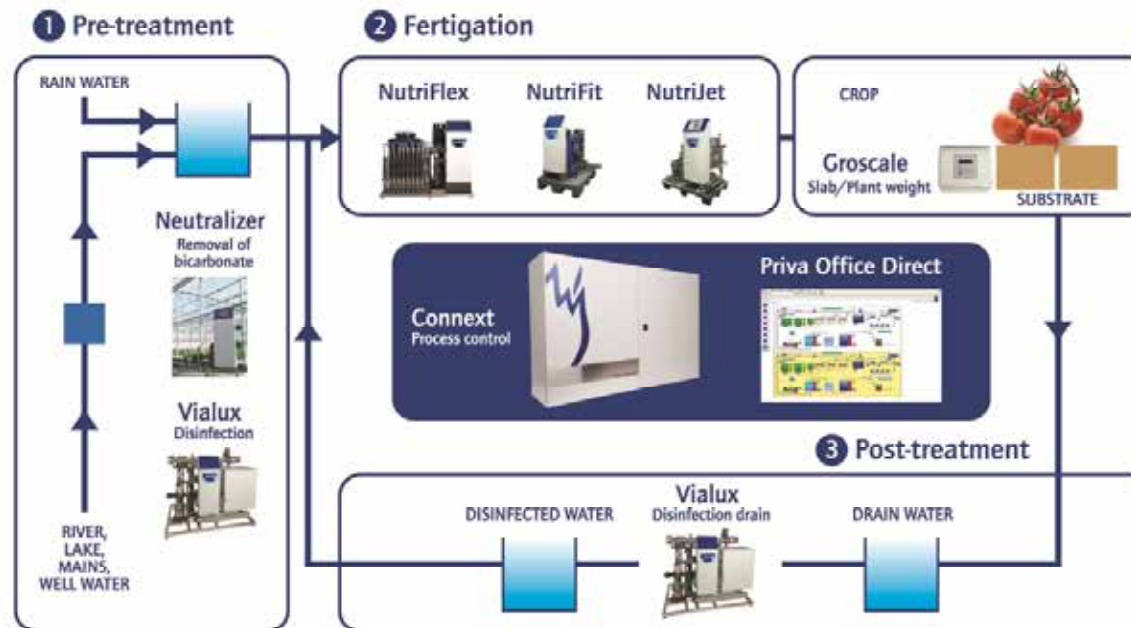


Priva Water Management

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control

Priva Water Management Program

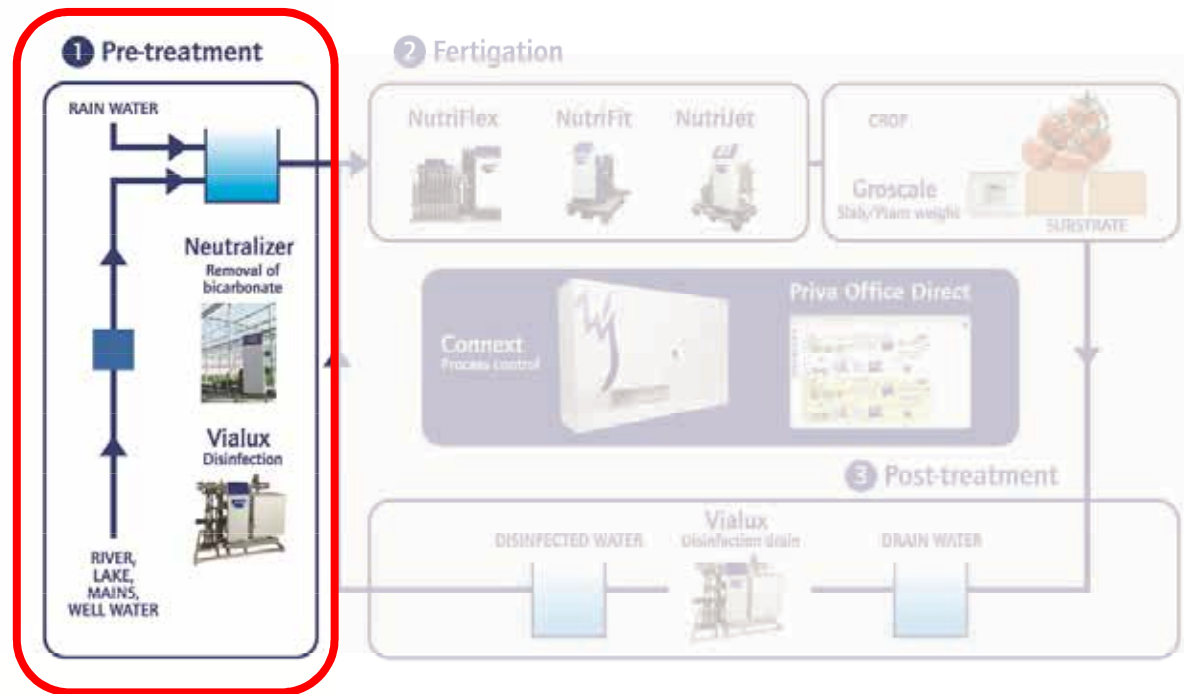


Water pre-treatment

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control

Priva Water Management Program



Priva Neutralizer

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control

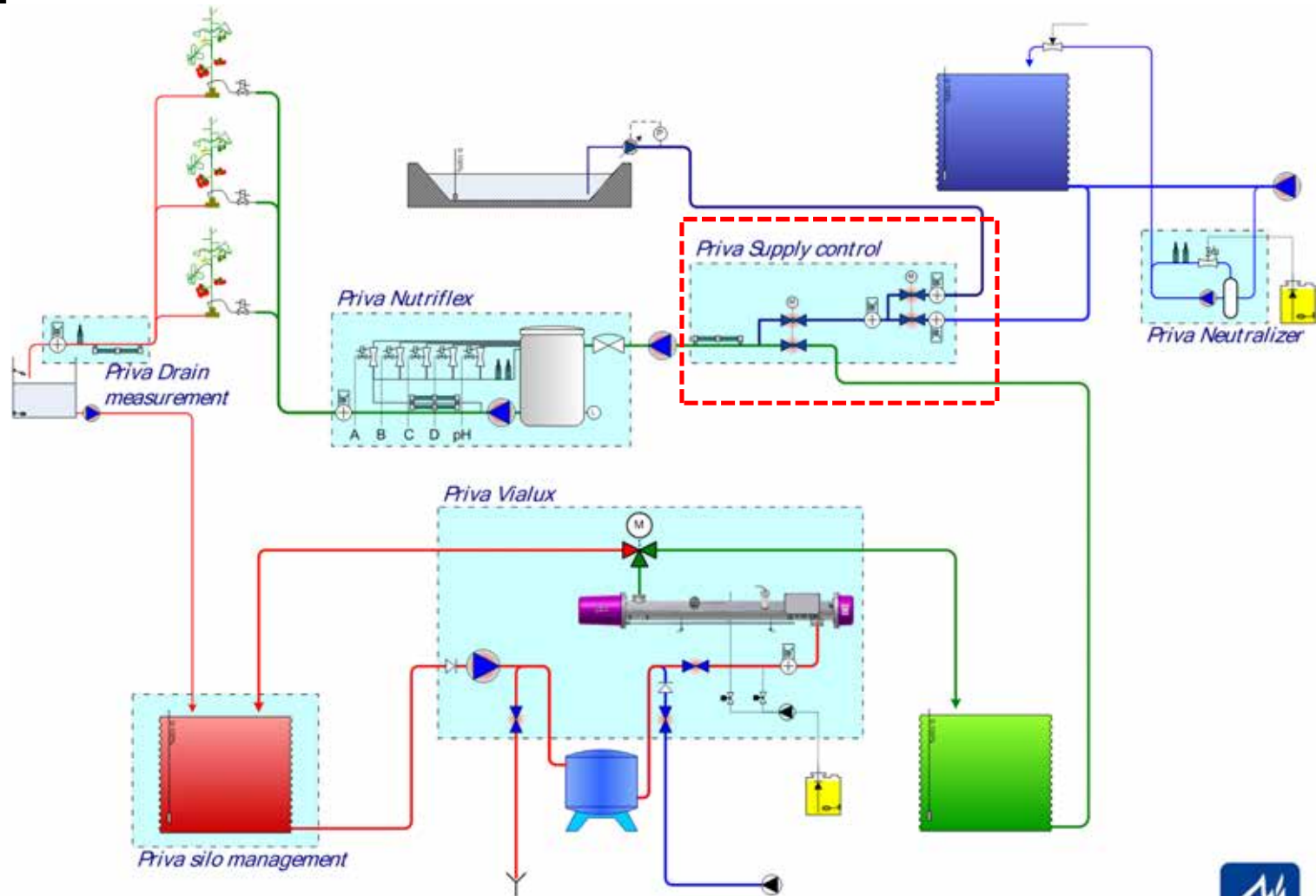


- **Bicarbonate removal in water storage tank**
 - Prevents unstable pH & EC control
 - Prevents blockage of drippers or nozzles
 - Prevents sediment of fertiliser crystals in pipes and slabs
 - Improves fertiliser uptake

Supply water control

Priva Water

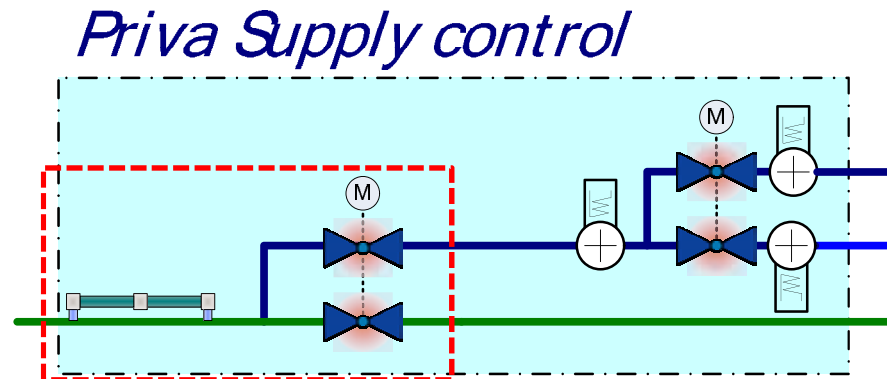
- Pre-treatment
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- Crop
- Post-treatment
- Control



EC pre-control

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control



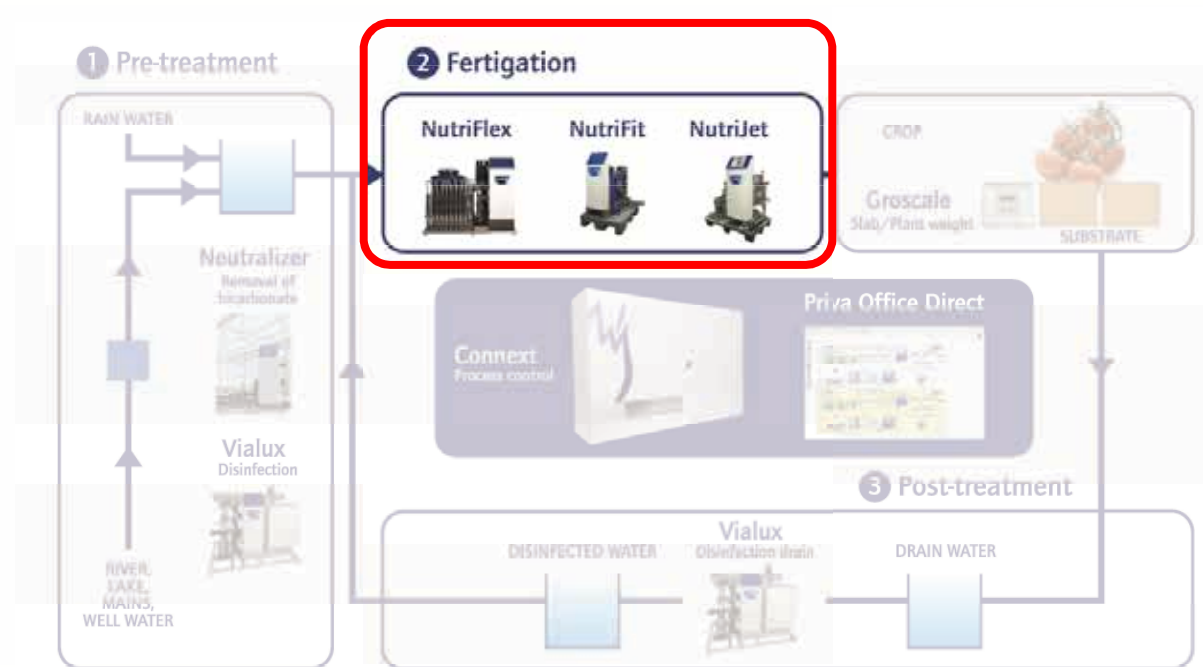
- **EC pre-control**
 - Mixing of return (drain) water and fresh water based on EC (25-30% re-use of drain water)
 - Automatic reduction of EC when low level in return water tank.
 - Radiation decrease of EC
 - Separate settings in each recipe

Water fertigation

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control

Priva Water Management Program



Priva NutriFlex mixing tank unit

Priva Water

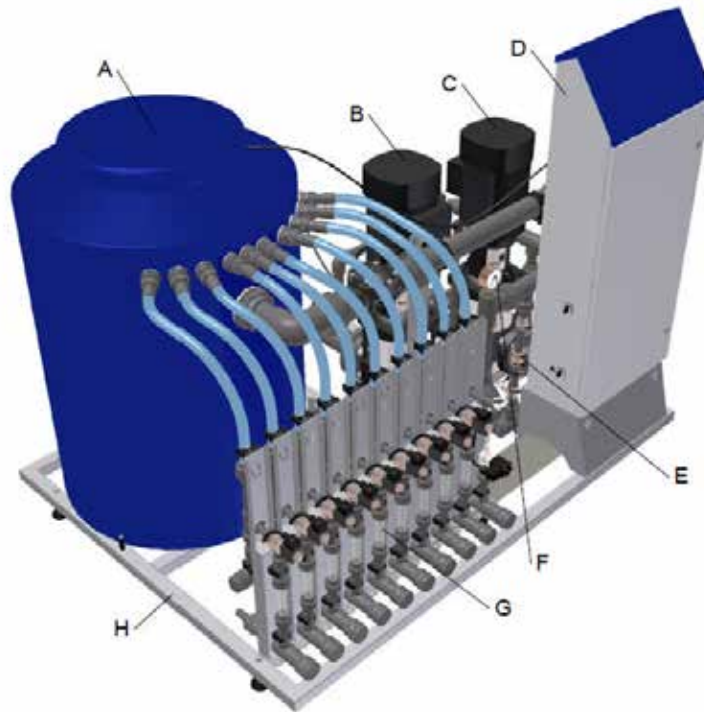
Pre-treatment

➤ Fertigation

Crop

Post-treatr

Control



A. Mixing tank

B. System pump

10-65 m³/h standard

> 65 m³/h tailor-made

C. Supply pump (optional)

D. Control unit

E. Double EC & pH sensors

F. Pressure gauge

G. Dosing channels

Max 10 channels

H. Frame

Priva NutriFit mixing tank unit

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control



- System pump
5-25 m³/h
- Max 5 dosing channels
- Single or double EC & pH sensors

Priva NutriJet direct injection unit

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control



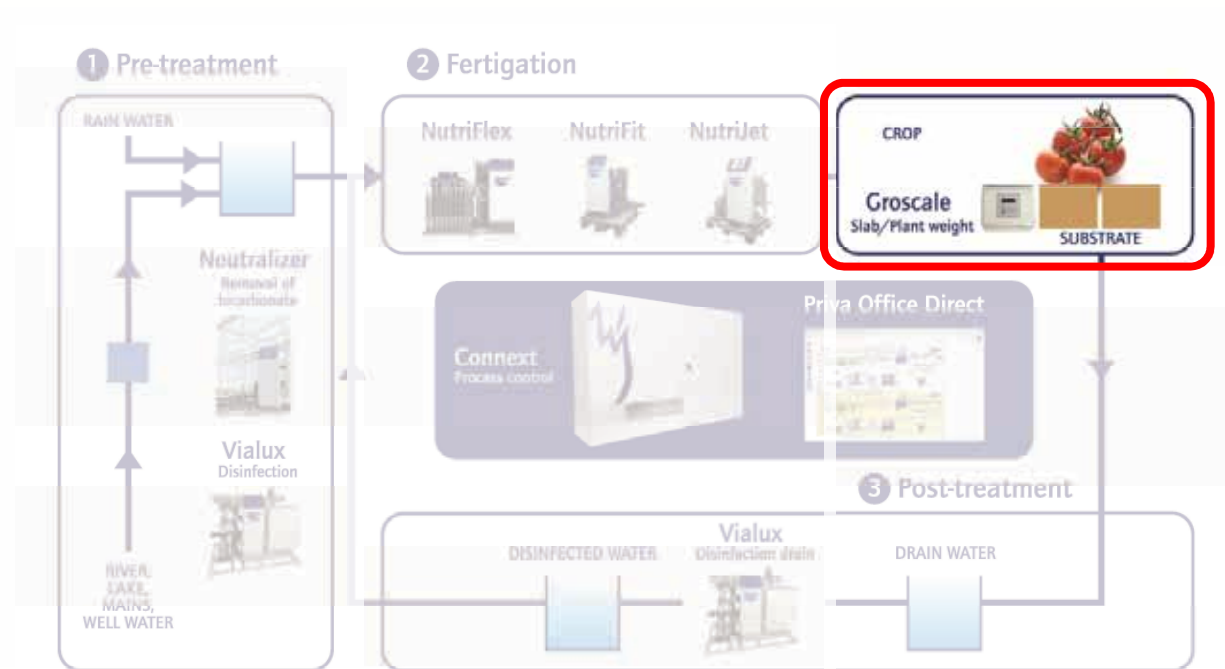
- **Nutrijet**
 - Cross-flow mixing chamber
 - Dosing channels
 - Max 4+pH 300 l/h*
 - Max 8+pH 600 l/h*
- **Inline**
 - System pump
 - 5-80 m³/h*
- **Bypass**
 - Bypass pump
 - (8-35 m³/h)*
 - 32-140 m³/h*

Optimal water gift to crop

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control

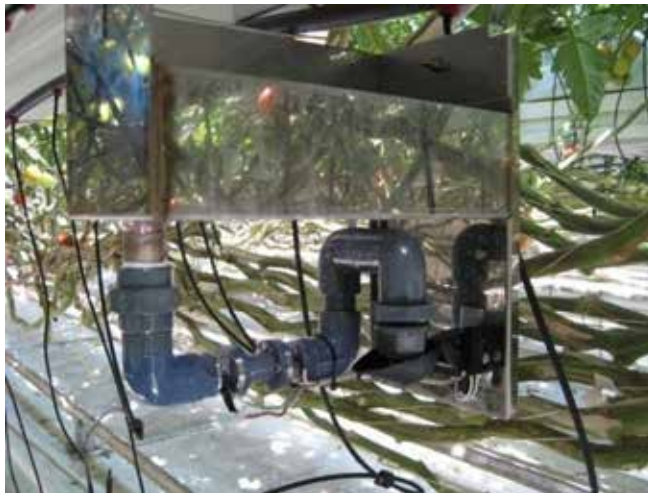
Priva Water Management Program



Priva Drain Sensor

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control

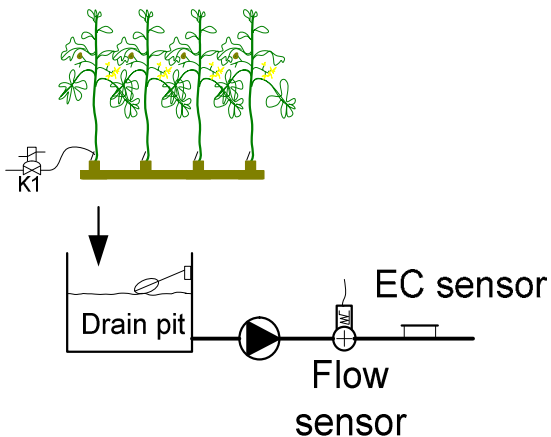


- **Limited measuring area**
 - 2,0 or 2,8 m collection tray
 - Calculated total drain quantity
- **Quick result**
 - 10-15 min
- **Extra measurements**
 - EC (sensor included)
 - pH (sensor optional)

Central drain measurement

Priva Water

- Pre-treatment
- Fertigation
- ▶ Crop
- Post-treatment
- Control



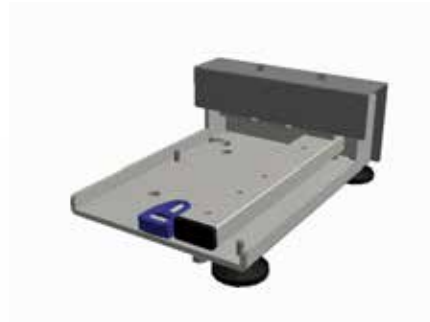
- **Large measuring area**
 - All water from one valve
 - Measured total quantity
- **Delayed result**
 - > 30 min
- **Extra measurements**
 - EC (sensor optional)
 - pH (sensor optional)

Priva GroScale

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control

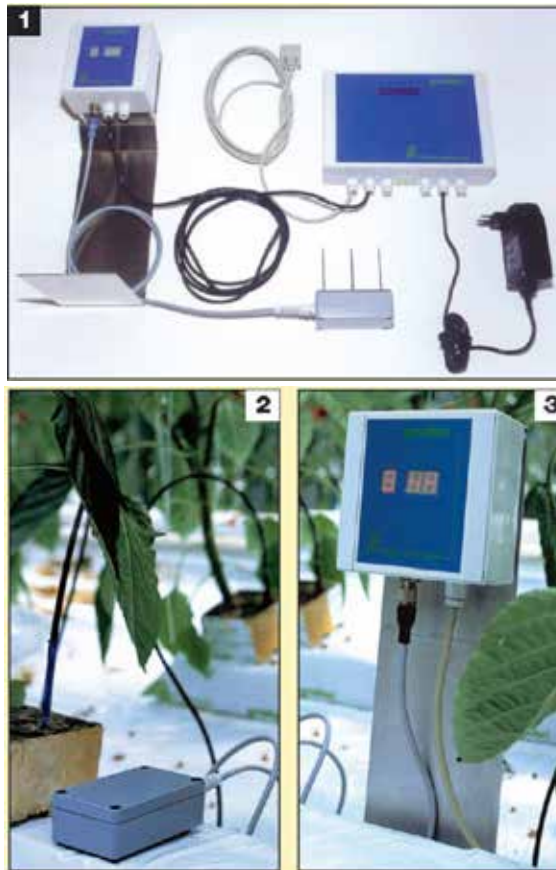
- **Slab weighing**
 - Accurate measurement (± 2 g)
- **Measurements**
 - Weight of the slabs
 - Water content (moisture level) in the slabs



Grodan WCM Continuous

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control



- **Measurements**
 - Water content (%)
 - EC
 - Temperature
- **One point measurement**
 - Where to measure?
 - Sensitive to sick plants, clogging drippers etc
- **No weight measurement**
 - No water content in l/m^2
 - Cannot measure water uptake by plants

Priva Root Optimizer

Priva Water

Pre-treatment

Fertigation

➤ Crop

Post-treatment

Control



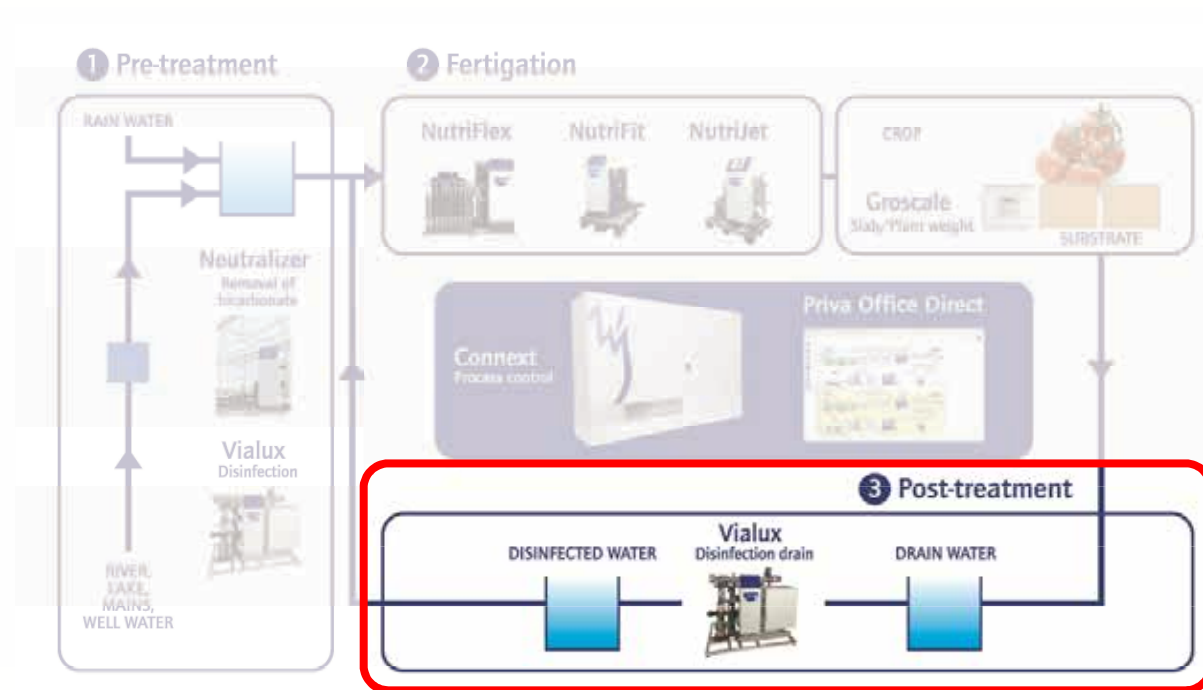
- **Priva Root Optimizer**
 - Priva Drain Sensor
 - Priva GroScale
- **Water uptake (Dry-out)**
 - Measured drain
 - Measured weight loss
 - Calculated transpiration sum
- **Accurate drain**
 - Desired drain calculated before irrigation start, not after irrigation

Water post-treatment

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control

Priva Water Management Program



Vialux High Pressure UV

Priva Water

Pre-treatment

Fertigation

Crop

➤ Post-treatment

Control



- **8 cm UV-chamber**
 - Min 10-15% T10
 - 8-06 1 lamp 6 kW
 - 8-09 1 lamp 9 kW
 - 8-12 1 lamp 12 kW
- **11 cm UV-chamber**
 - Min 30-35% T10
 - 11-09 1 lamp 9 kW
 - 11-12 1 lamp 12 kW

Tank control

Priva Water

Pre-treatment

Fertigation

Crop

- Post-treatment
Control



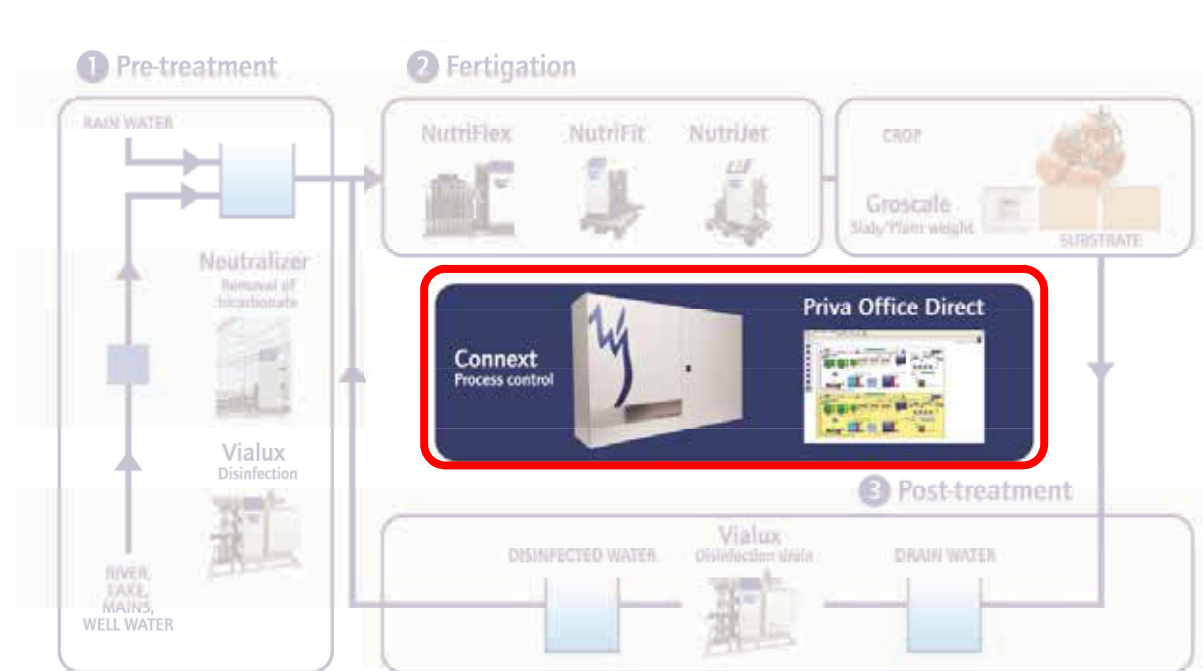
- **Level measurement**
 - The level in each tank can be measured.
- **Tank selection**
 - The supply tank and the destination tank can be selected in each fertiliser recipe.
- **Filling of tank**
 - Tanks that are used for day storage can automatically be filled with pre-treated water.
- **Return line control**
 - If a lot of return water is on its way to the return tank the irrigation can pause temporarily to avoid overflow of the return tank.

Process control water

Priva Water

- Pre-treatment
- Fertigation
- Crop
- Post-treatment
- Control

Priva Water Management Program



Priva Water Solutions – Nick Field

Priva Water

Pre-treatment

Fertigation

Crop

Post-treatment

Control

Thank you for your attention

