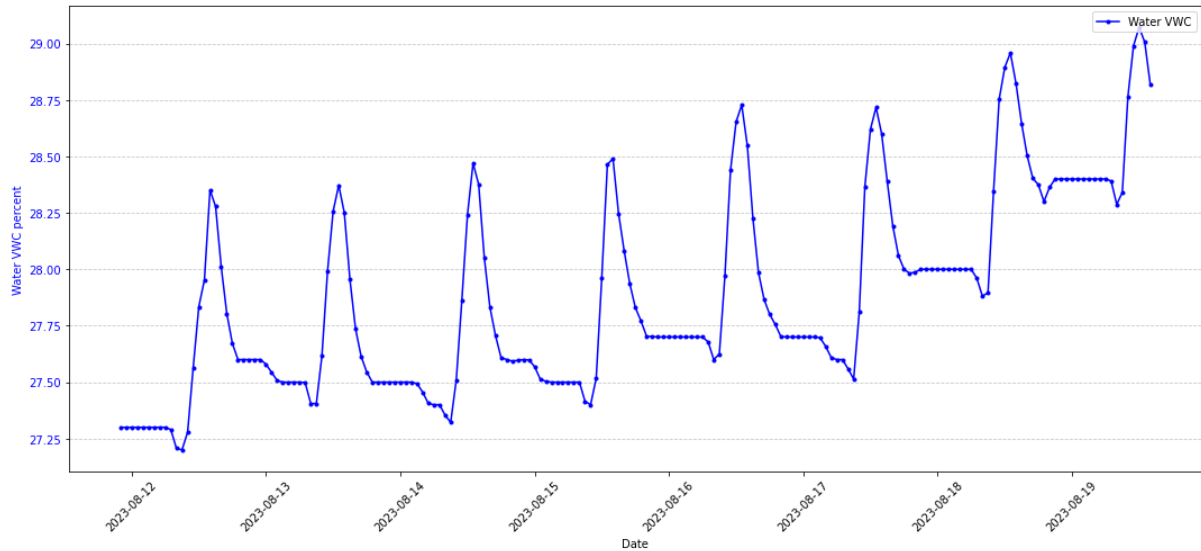


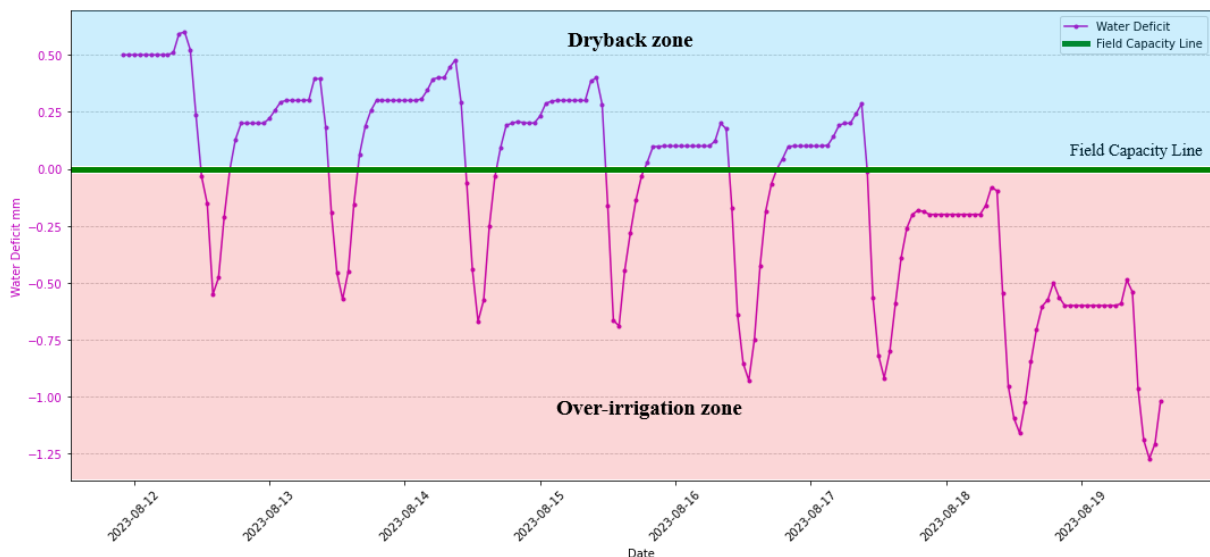
## Explaining AI enhanced moisture data

### VWC soil moisture data



All moisture sensors provide volumetric water content (VWC) data represented in percentage format, as shown above. This data remains unstandardised and exhibits variations based on the specific sensor and the type of medium being measured. Consequently, growers face challenges in utilising this data to accurately assess whether the medium is experiencing over-irrigation or under-irrigation.

### AI driven soil moisture data (Water deficit-surplus)

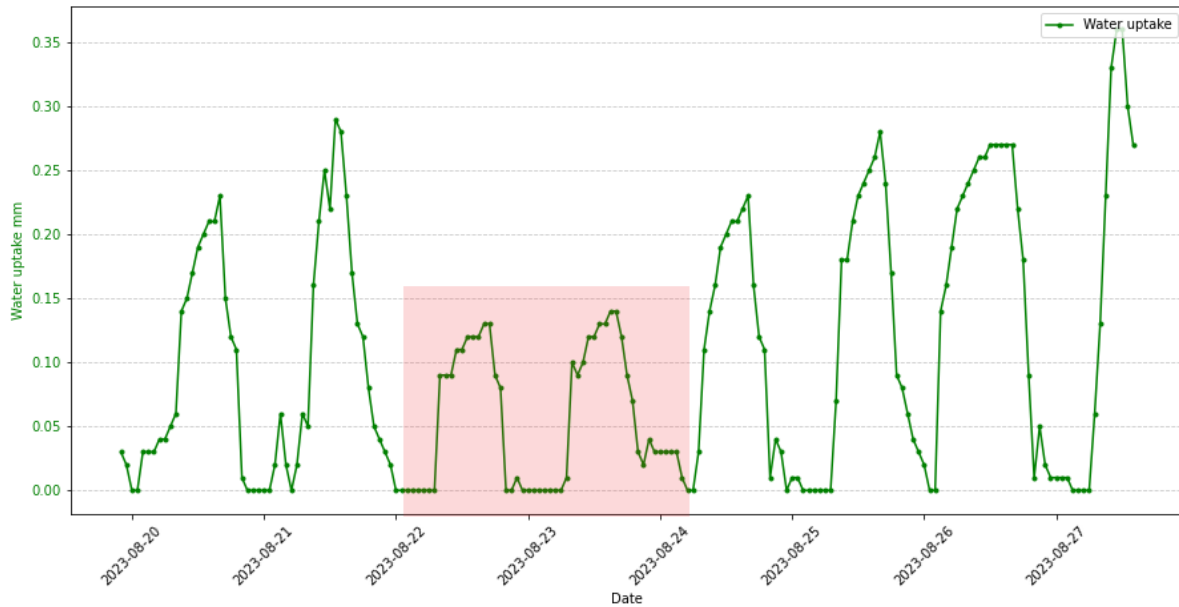


The deficit-surplus chart displayed above is derived from VWC moisture data. It is normalised using the field capacity or optimum water holding capacity of the medium, which is represented as a zero line and is color-coded in green. When the reading falls below the field capacity line, it indicates that

## AI enhanced moisture data

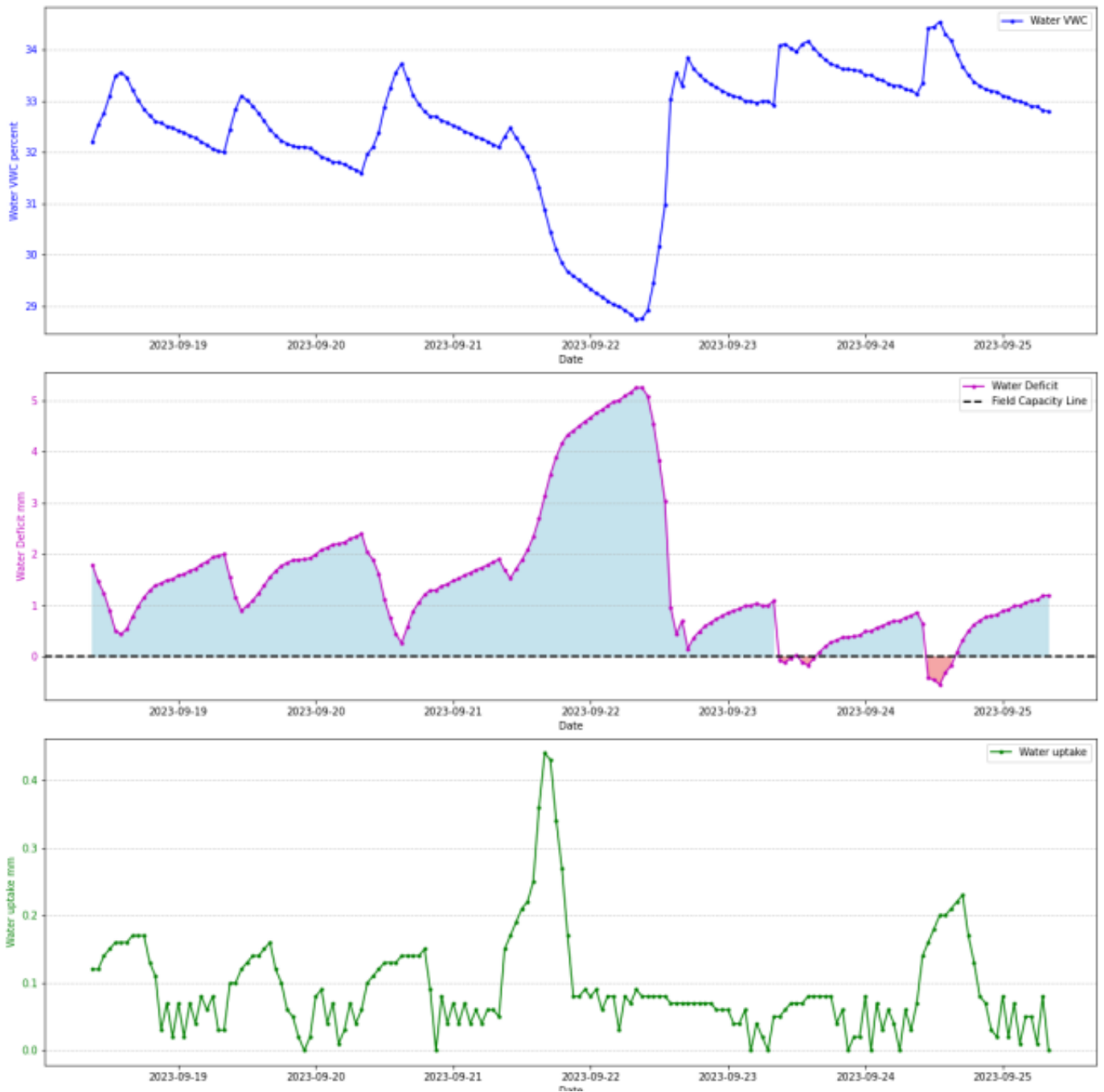
the medium is over-irrigated, and it is advisable to cease irrigation to prevent waterlogging and runoff.

### AI driven soil moisture data (Plant water uptake)



The plant water uptake data above quantifies hourly water loss through transpiration. This information proves valuable in detecting plant stress caused by factors like soil moisture deficiency or environmental conditions such as light, air temperature, and humidity levels.

## Your Irrigation Results



### Results Analysis

According to the data, the total sensor depth was subjected to excessive watering on 3 occasion/s. The following list provides the specific dates and times when the soil was over-watered:

|                     |
|---------------------|
| 2023-09-23 09:00:00 |
|---------------------|

## AI enhanced moisture data

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|                     |
|---------------------|
| 2023-09-23 13:00:00 |
| 2023-09-24 11:00:00 |

To determine a period of plant stress, we assume that the plant's water uptake remains below a threshold for three consecutive hours within the active time frame of 8 am to 6 pm. Below is a list of specific dates and times when there was reduced uptake and the corresponding deficit readings:

| Datetime | Water Deficit |
|----------|---------------|
| None     | None          |

The next step is to analyze the daily average plant water uptake. The calculation is expected to absorb a significant amount of water for photosynthesis. A consistent decrease in water uptake may suggest plant stress, root damage, or disease. Below is a list of the average plant water uptake per hour and the date:

| Date       | Average Water Uptake mm |
|------------|-------------------------|
| 2023-09-18 | 0.152                   |
| 2023-09-19 | 0.117                   |
| 2023-09-20 | 0.121                   |
| 2023-09-21 | 0.255                   |
| 2023-09-22 | 0.076                   |
| 2023-09-23 | 0.070                   |
| 2023-09-24 | 0.119                   |

**\*NOTE:** While we back the data that is produced by the algorithm. Every growing environment is different and therefore changing irrigation schemes should be tested and independently reviewed for effectiveness. Tau Research takes no responsibility for any negative outcomes on plant health.

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