

UV-LED irradiation for biofouling reduction in drip irrigation emitters fed by wastewater effluent.

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† In memory of Barak White who sadly passed away in May 2022, before completing his research.

Supporting Information

S.1. Synthetic treated wastewater recipe

The following synthetic TWW recipe attempts to mimic the quality of Ma'ale Kishon TWW reservoir. This $12.5 \cdot 10^6 \text{m}^3$ reservoir absorbs effluent from Haifa wastewater treatment plant and supply TWW to unlimited agricultural use in accordance with Israeli public health regulations.

The recipe includes Kaolin 15mg/L, Iron Sulfate (FeSO_4) 0.43mg/L, Potassium Phosphate (K_2HPO_4) 23mg/L, Calcium Chloride dehydrate ($\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$) 255mg/L, Sodium Bicarbonate (NaHCO_3) 370mg/L, Sodium Chloride (NaCl) 80.5mg/L, Magnesium Sulfate ($\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$) 180mg/L, Sodium Nitrate (NaNO_3) 49.4mg/L, Ammonium Chloride (NH_4Cl) 7.2mg/L, Urea ($\text{CO}(\text{NH}_2)_2$) 5.41mg/L, Potassium Chloride (KCl) 40.8mg/L, Potassium Sulphate (K_2SO_4) 7.74mg/L, Peptone 28.9mg/L, and Beef extract 19.8mg/L.

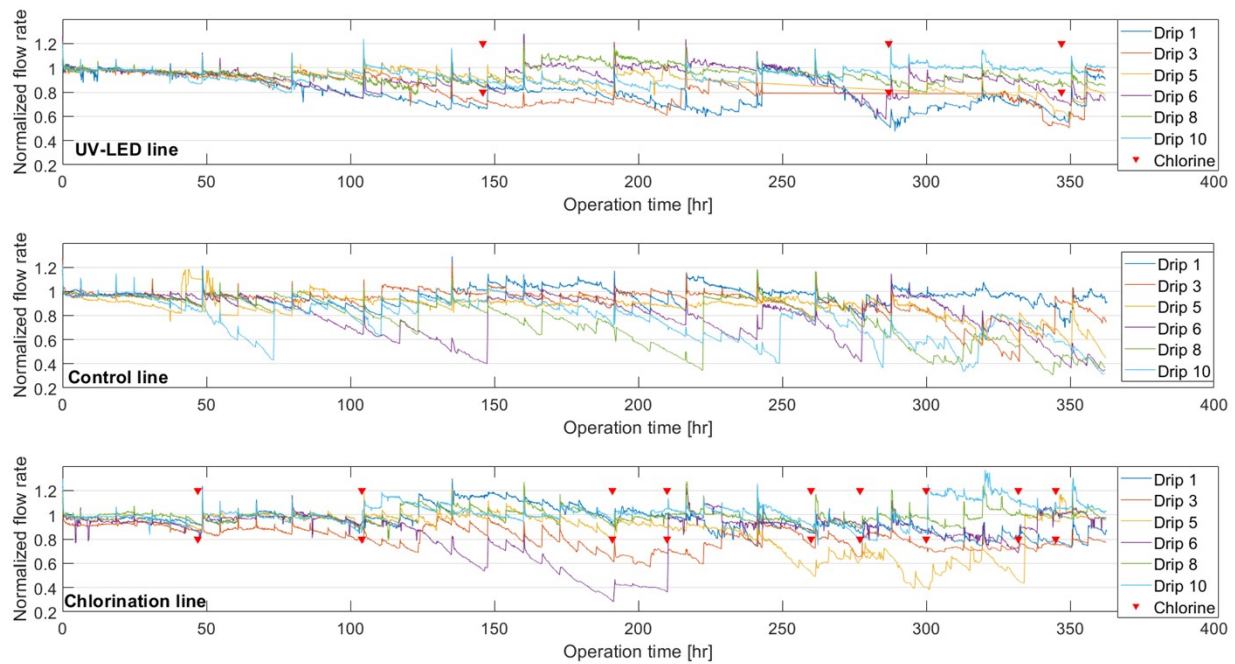


Figure S1: Normalized flowrate (flowrate divided by initial flowrate) measured by the tipping-bucket rain gauges vs. operation time for each treatment line. The red triangular signify maintenance of the pipelines by proactive chlorination.