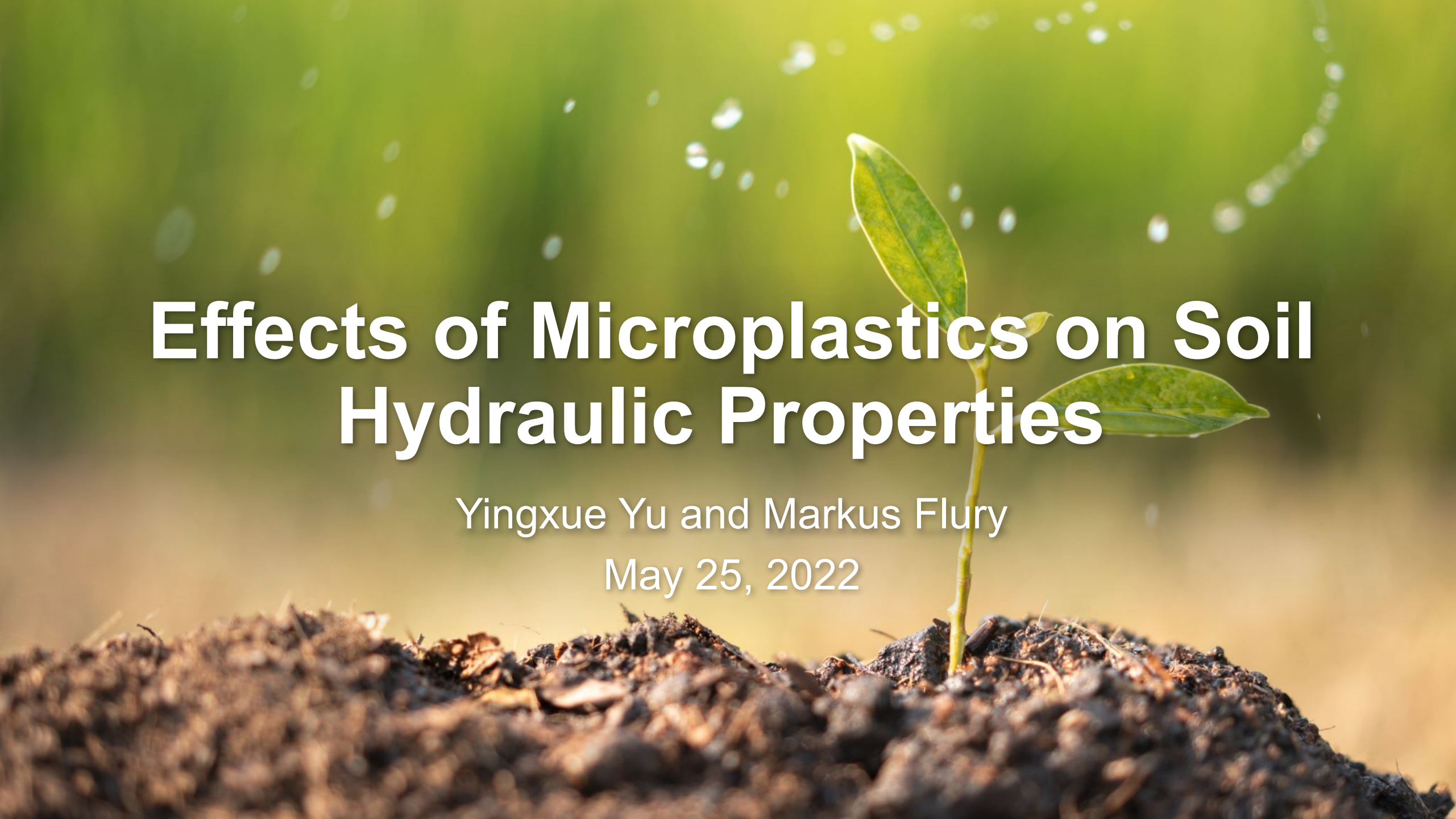
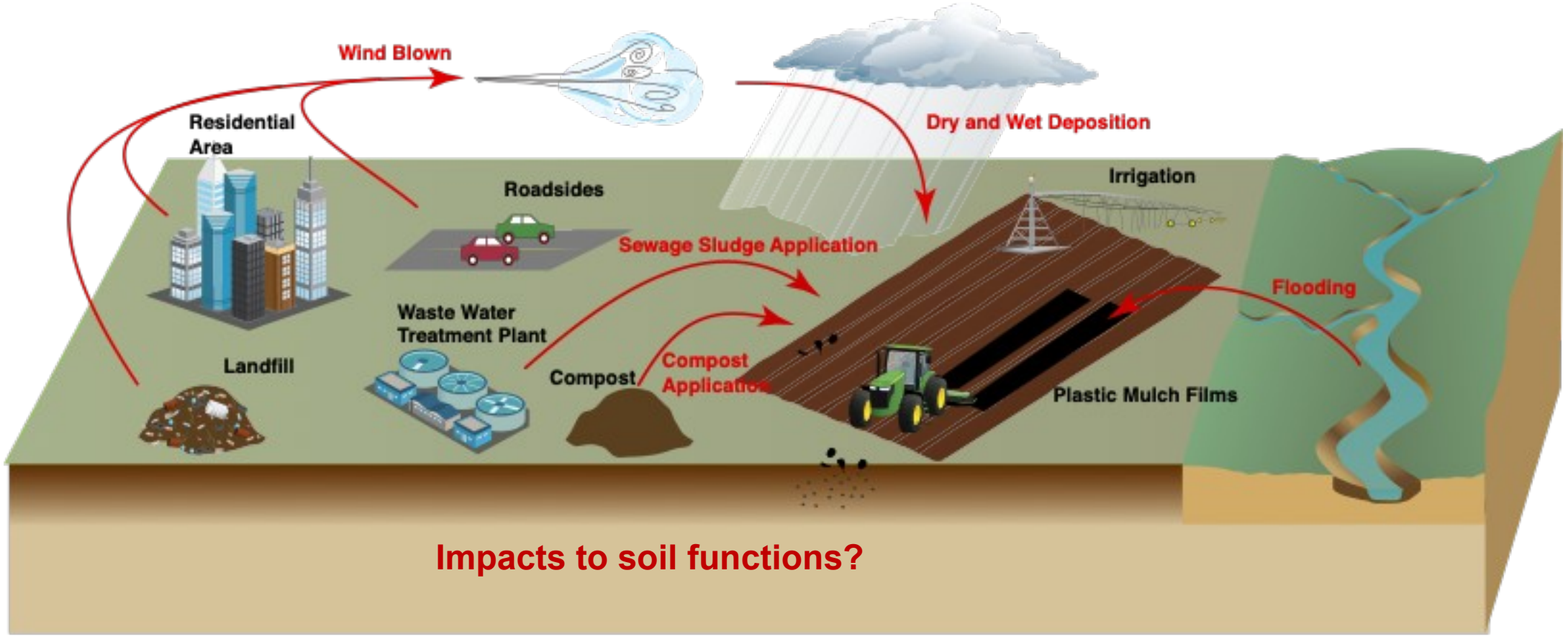


Effects of Microplastics on Soil Hydraulic Properties

Yingxue Yu and Markus Flury

May 25, 2022

Agricultural Soil—Reservoir of Microplastics

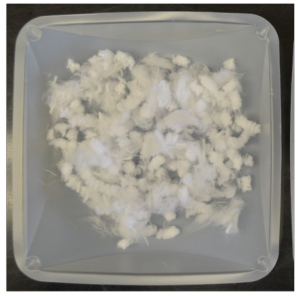


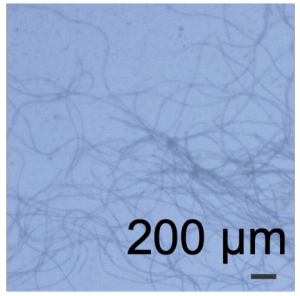
Impacts to soil functions?

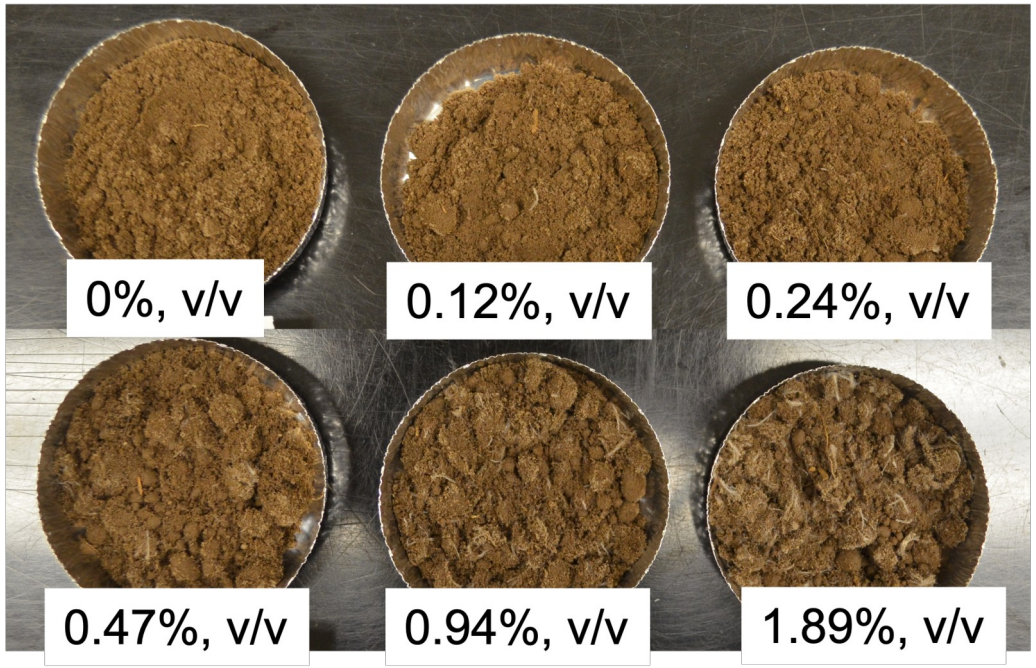
Microplastics

Polyester Fibers

8 μm in diameter
5 mm in length

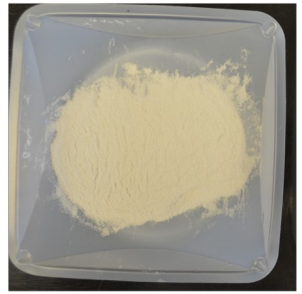


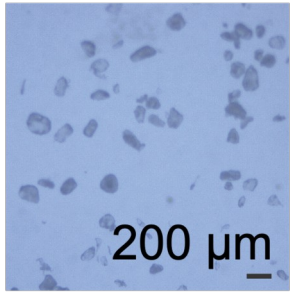


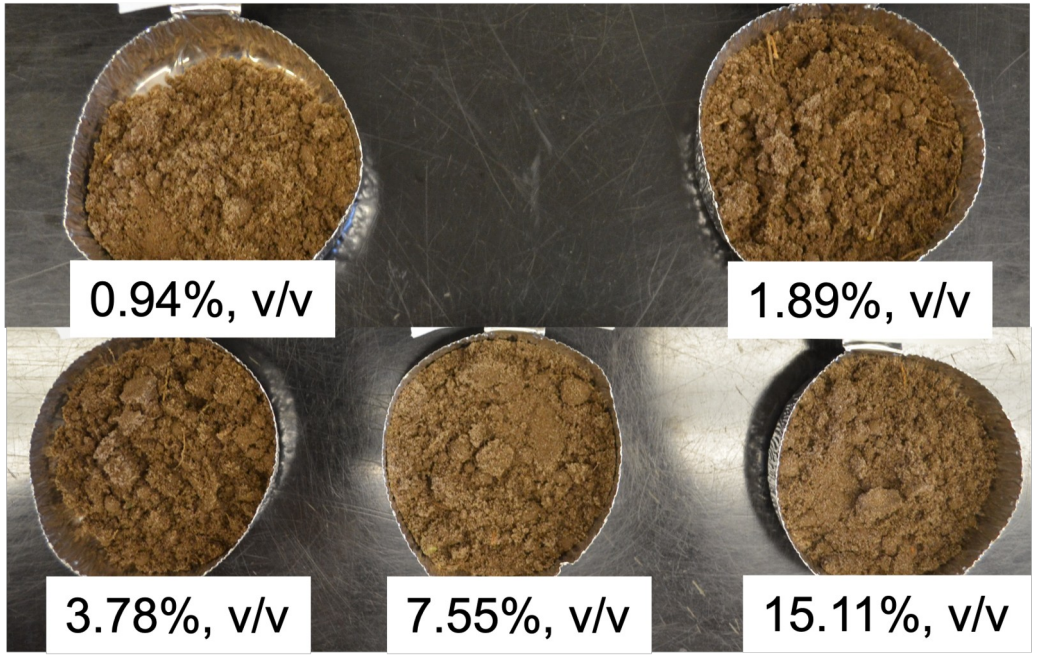


Polypropylene Granules

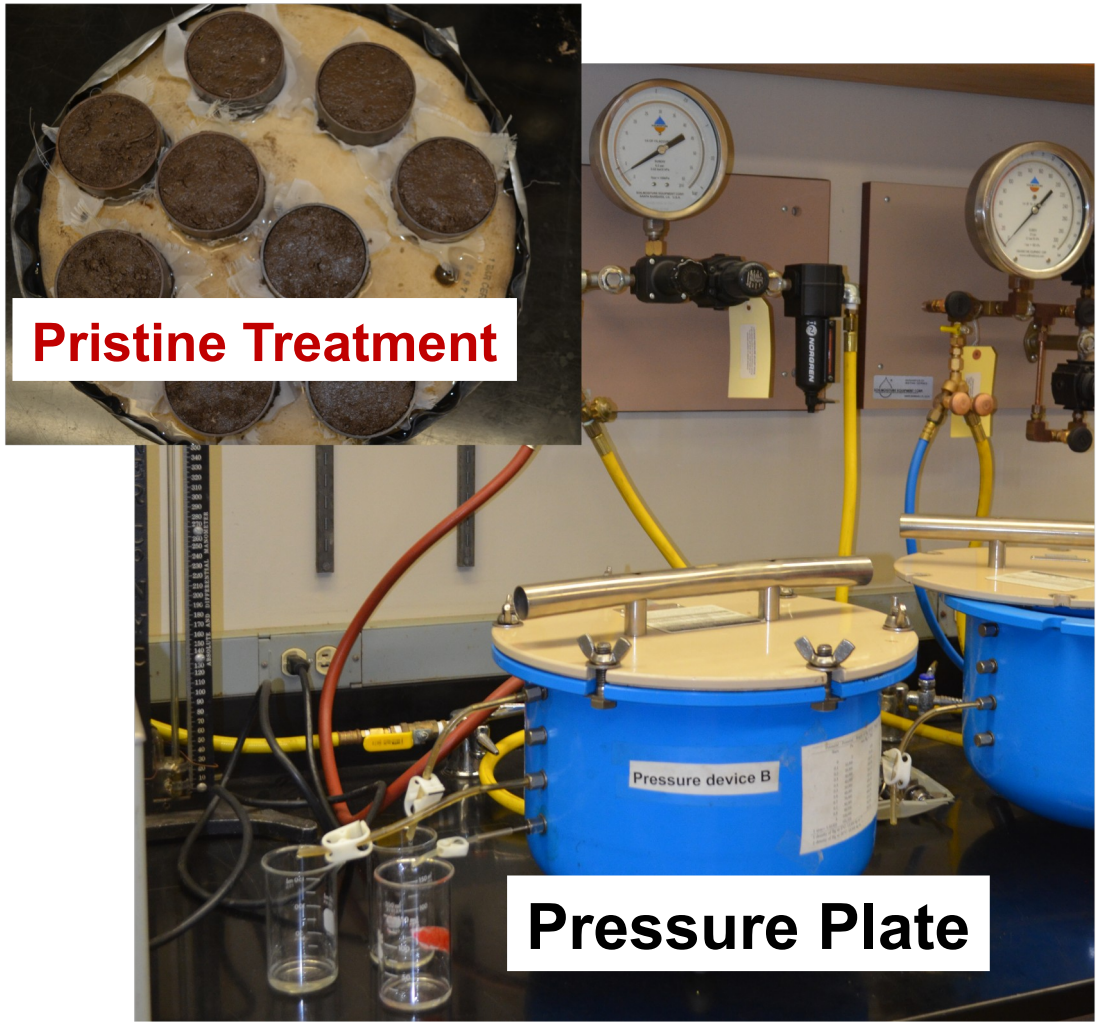
53~125 μm
mean = 81 μm

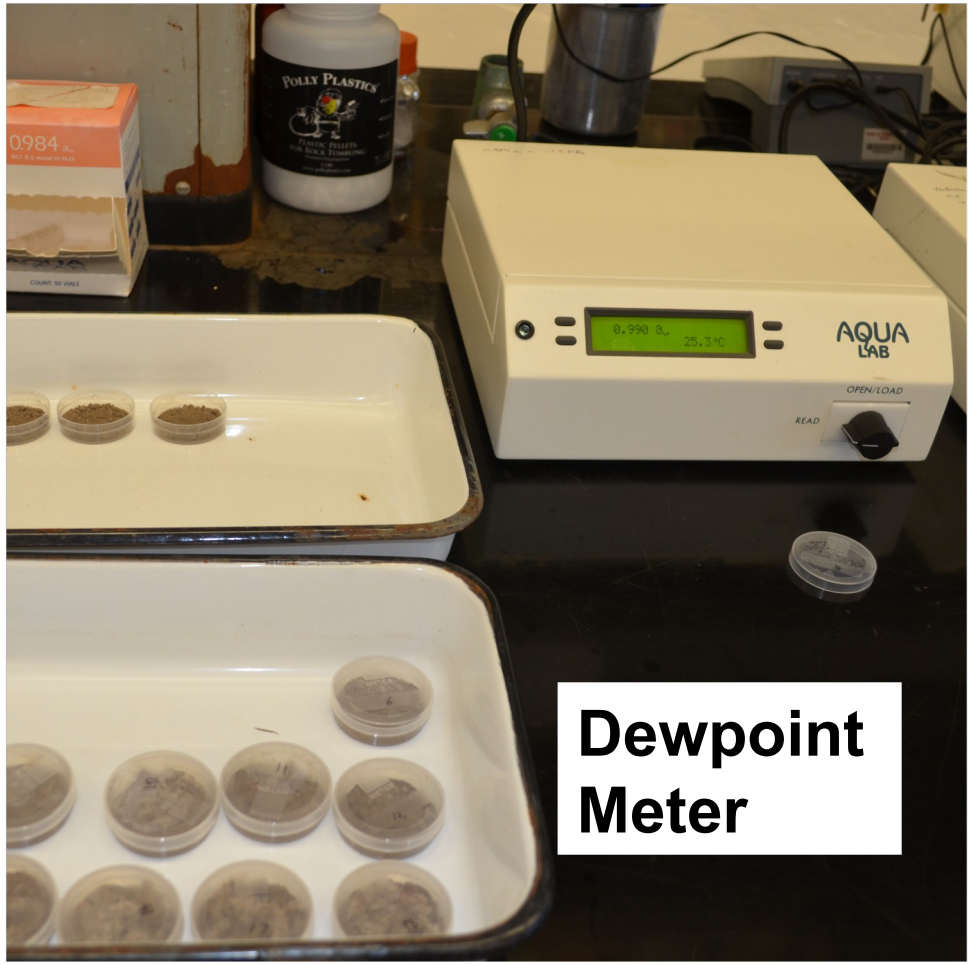




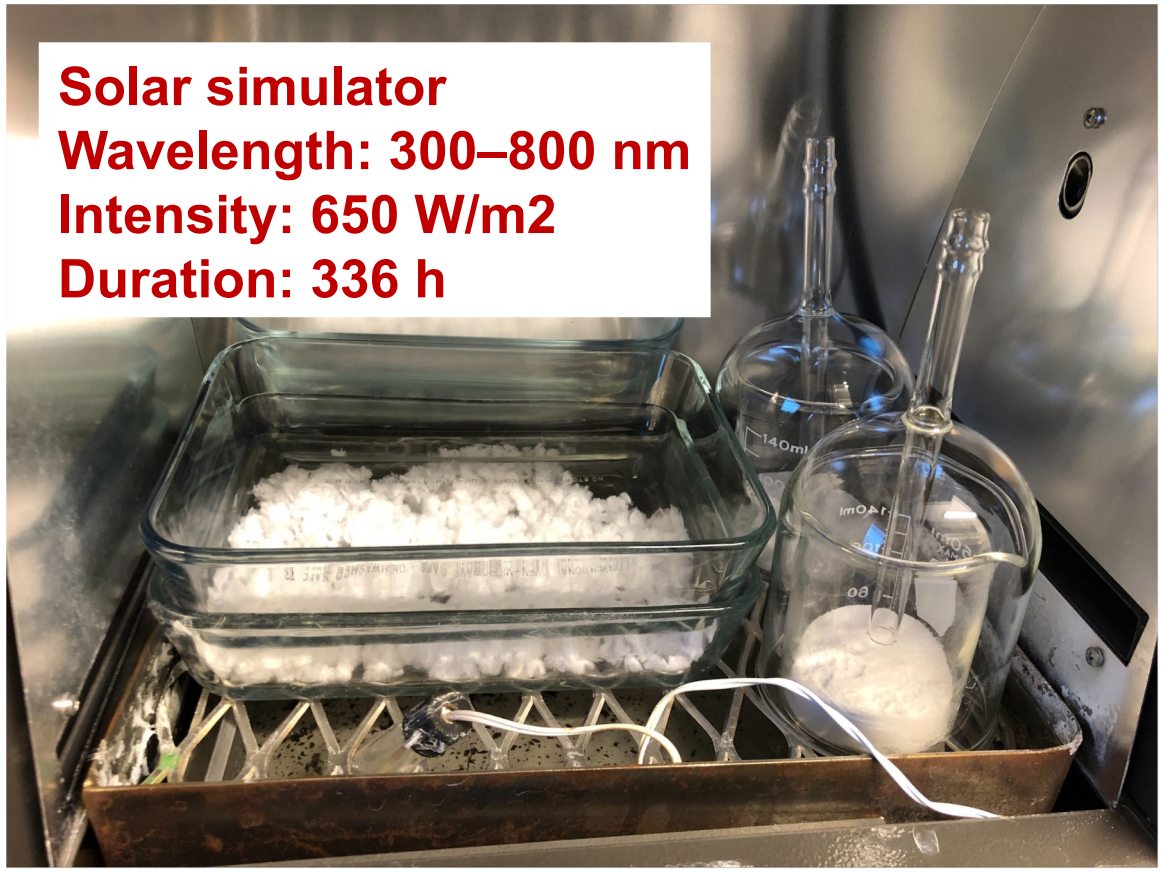


Field Capacity and Permanent Wilting Point

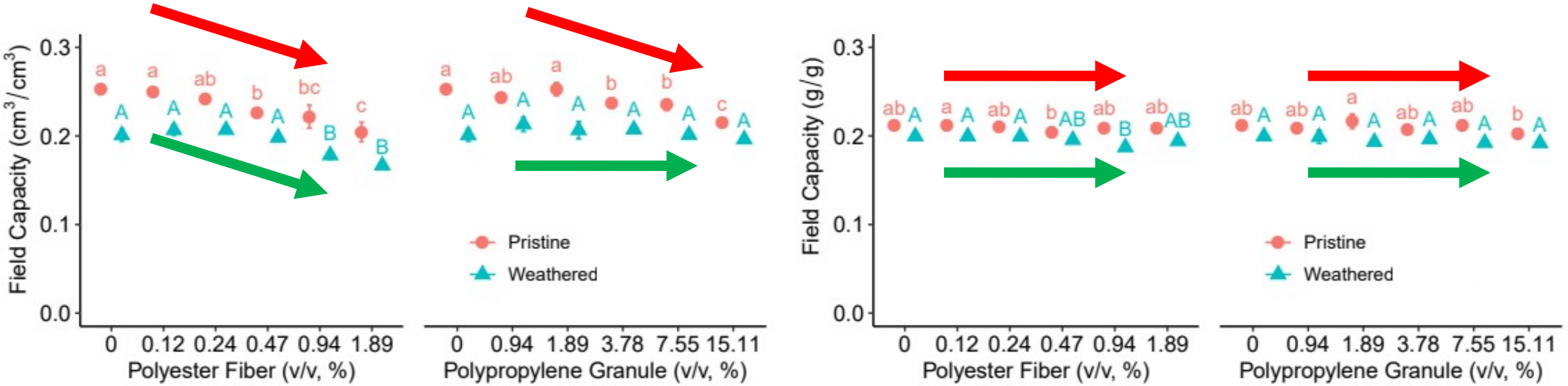




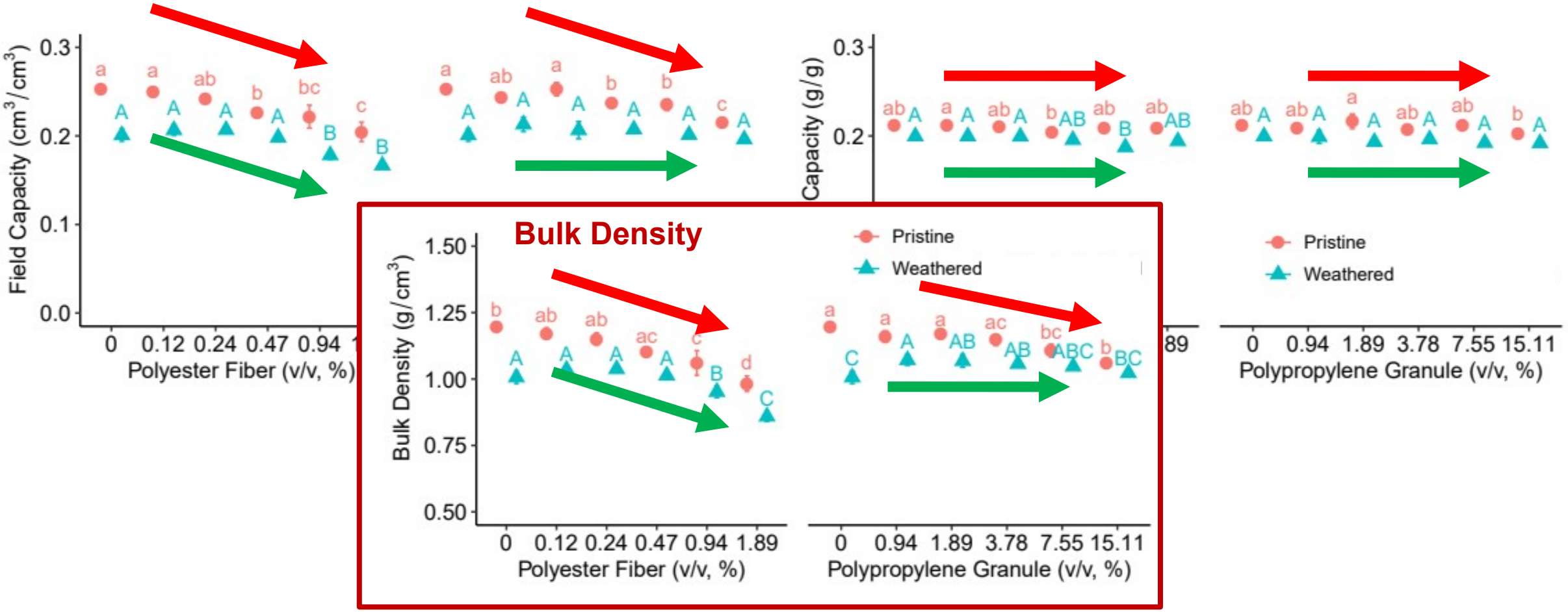
Effect of Natural Weathering



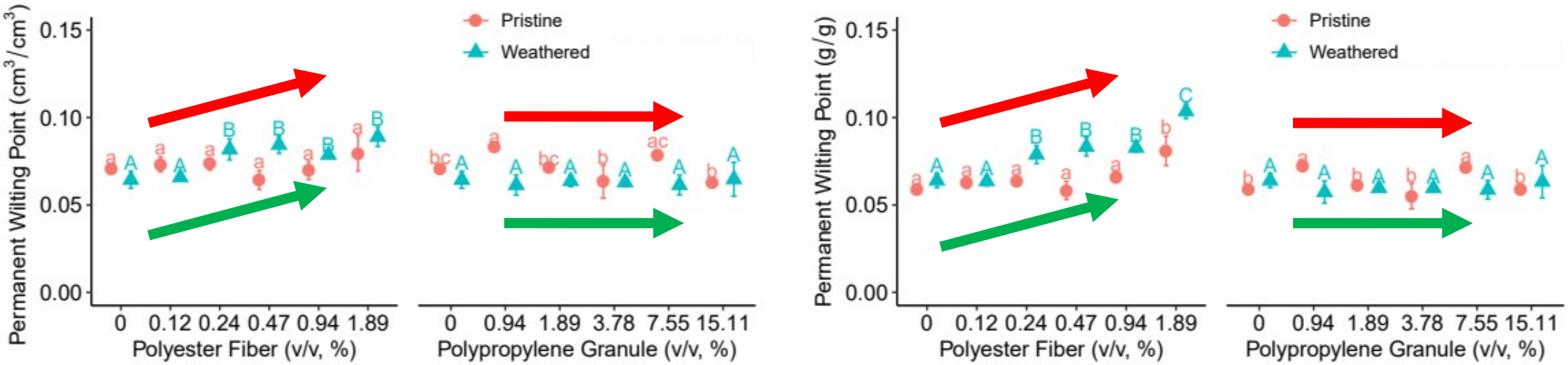
Volumetric and Gravimetric Field Capacity



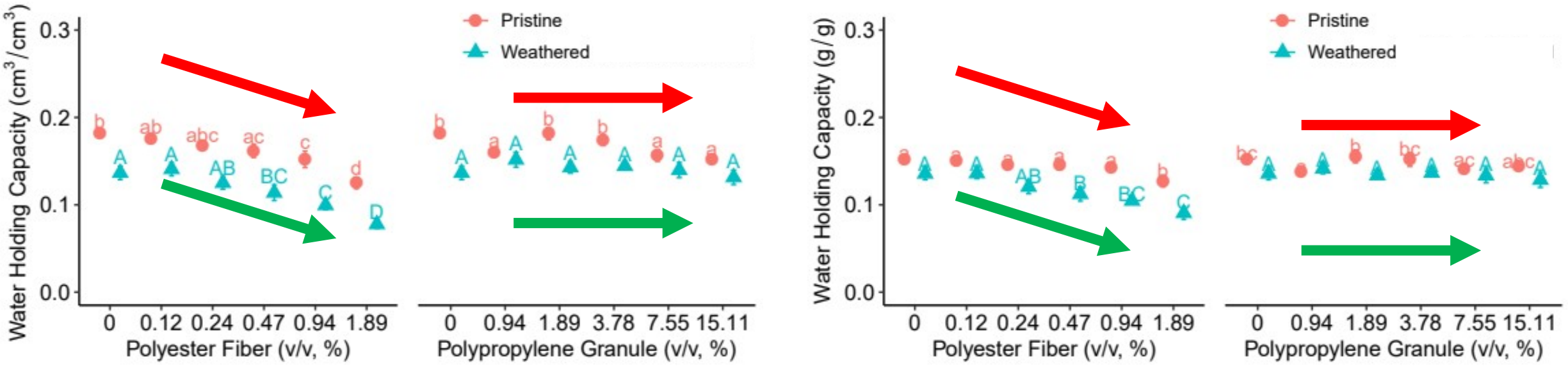
Volumetric and Gravimetric Field Capacity



Volumetric and Gravimetric Permanent Wilting Point



Volumetric and Gravimetric Water Holding Capacity



Volumetric and Gravimetric Water Holding Capacity