

D.I.R.T.

dynamic irrigation
recommendation technologies

Chemical Free

enhanced absorption

powered by



Increased Dissolved Nutrients

Increases Nutrient Uptake

2019

Ca Uptake and Yield Studies

Connell, WA
Shano Silt Loam Soil
Russet Potatoes

Monitoring Enhanced Absorption Reduced Irrigation Nets over 5 T/ac



July 2019

“What am I gonna do with
all this water...
I can skip days watering”





9/12/19
Mukang Lab
Pasco, WA

The “unbonded water” appears to have dissolved nutrients tied up in the soil increasing Plant Available Nutrients, which increased **Calcium Uptake in the potatoes by:**

123% in Field 251
114% in Field 172

and Calcium/Potassium ratios by:

120% in Field 251
123% in Field 172

04/06/20
WaterPoint Tests
Canby, OR

Shano Silt Loam soil was drip irrigated with Treated and Untreated water, simultaneously, and drainage captured and tested for Nutrient content. The treated water dissolved more Nutrients than the Control by:

Ca	124%
Mg	124%
K	109%
N	NA



Oregon State
University

10/27/20
OSU Lab
Hermiston, OR

Pre-Study tests were replicated in the OSU Lab in Hermiston, OR. Tests were run using samples from same Shano Silt Loam soil batch collected for the WaterPoint Lab tests. The treated water dissolved more Nutrients in these tests, over the Control, by:

Ca	160.0%
Mg	170.5%
K	148.8%
N	172%



Increased Soil Absorbency

12/11/17



To verify findings from a waste-water filtration study WaterPoint conducted in 2017, in Boardman, OR; 1100 lbs of Winchester Sand soil was collected from the study fields for OSU Crop and Soil Science researchers to conduct Wetting Pattern observations in a controlled Lab environment.

The researchers built twin tanks 3' by 3' tall and long by 6" wide to observe the Wetting Patterns of simultaneous controlled drip into each tank. After approx. 5 hours, the Lab observations confirmed what the field sensor data had led to discovery – RF Treated **“Unbonded Water”** increased saturation by **>33%** in the upper 16" over nontreated water.

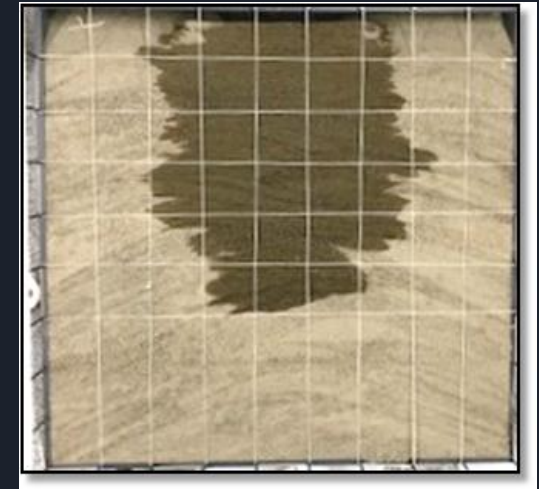
Wetting Pattern Lab Observations

Winchester Sand Soil

Nontreated Water



Treated Water



2021
Echo, Oregon
Fields 551 and 555
Drip Tape Onions
Shano Silt Loam

Flood dams built below the field
irrigated with **Nontreated-water**



Throughout the season, the grower noticed reduced runoff and Wider wetting patterns in the field irrigated with the Treated **Unbonded-water**



The grower noticed **wider** wetting patterns across the treated field and **similarly smaller** patterns in the non-treated fields

