

All Irrigation Starts with Soil Type

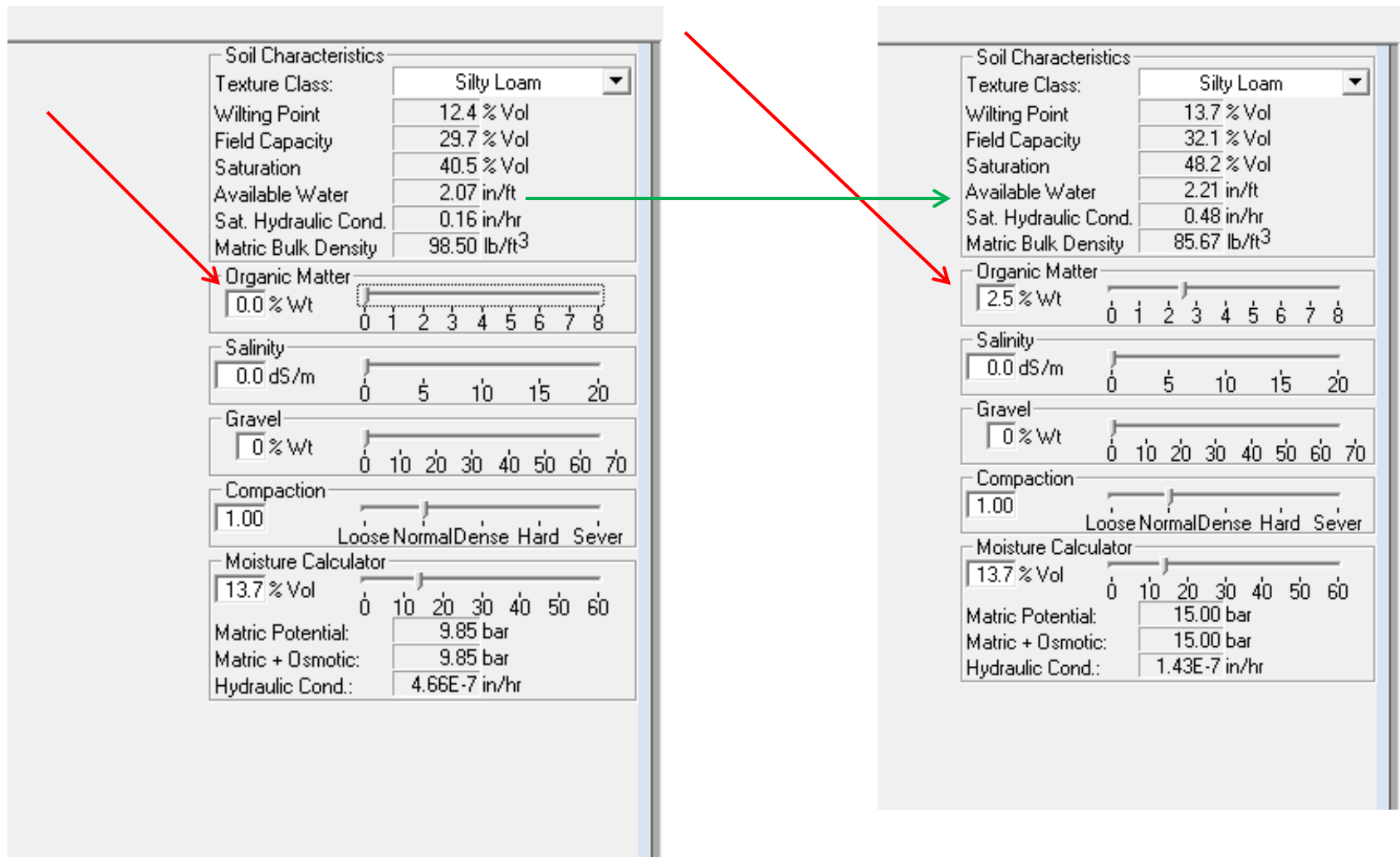


Soil Texture Data

% Refill

	% Sand	% Silt	% Clay	% Field Capacity	% Permanent Wilting Point	% avail water	gal/ac ft Avail Water	inches/ ac ft Avail Water	% Refill Avail Water	gal/ac ft Refill Avail Water	inches/ac ft Refill Avail Water
Grower 1	83	11	6	15	6	8	26,965	1.0	4	13,482	0.5
Grower 2	73	22	5	17	7	10	32,668	1.2	5	16,334	0.6
Grower 3	31	50	19	28	12	16	50,624	1.9	8	25,312	0.9
Grower 4	71	20	9	18	8	10	32,060	1.2	5	16,030	0.6
Grower 5	91	4	5	13	6	7	23,680	0.9	4	11,840	0.4
Grower 6	61	30	9	20	9	12	37,516	1.4	6	18,758	0.7
Grower 7	31	50	19	28	12	16	50,624	1.9	8	25,312	0.9

Variables of Water Holding



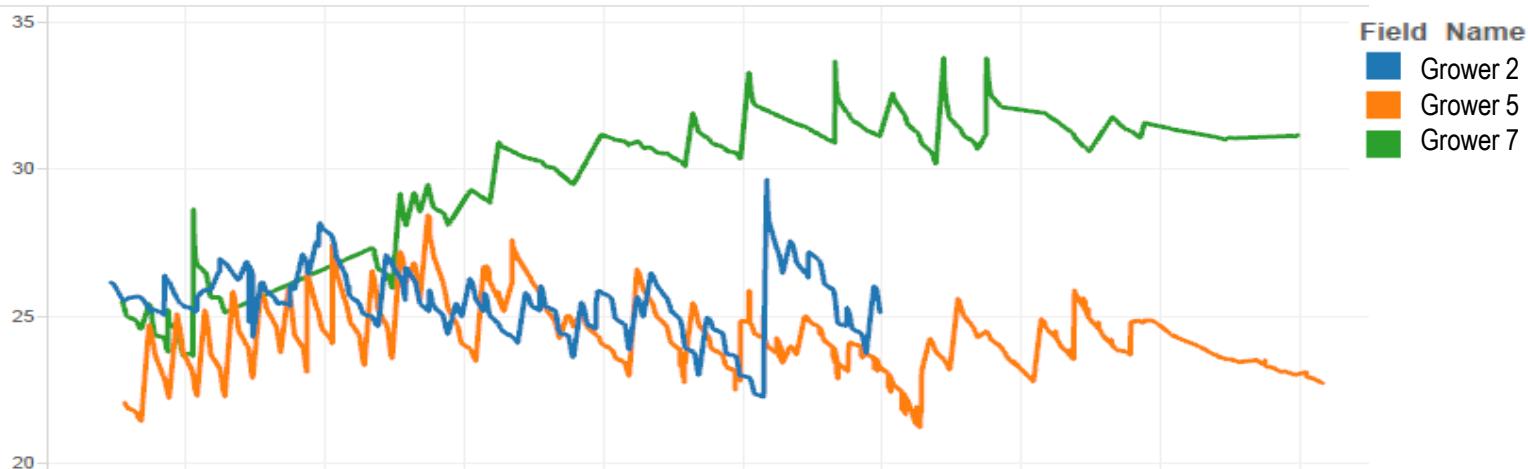
1.5 meter (5 foot) soil probes



Average Water balance all depths

Sheet 33

MeasureUnit



	% Sand	% Silt	% Clay	% Field Capacity	% Permanent Wilting Point	% avail water	gal/ac ft Avail Water	inches/ ac ft Avail Water	% Refill Avail Water	gal/ac ft Refill Avail Water	inches/ ac ft Refill Avail Water	% Refill
Grower 1	83	11	6	15	6	8	26,965	1.0	4	13,482	0.5	50.0
Grower 2	73	22	5	17	7	10	32,668	1.2	5	16,334	0.6	
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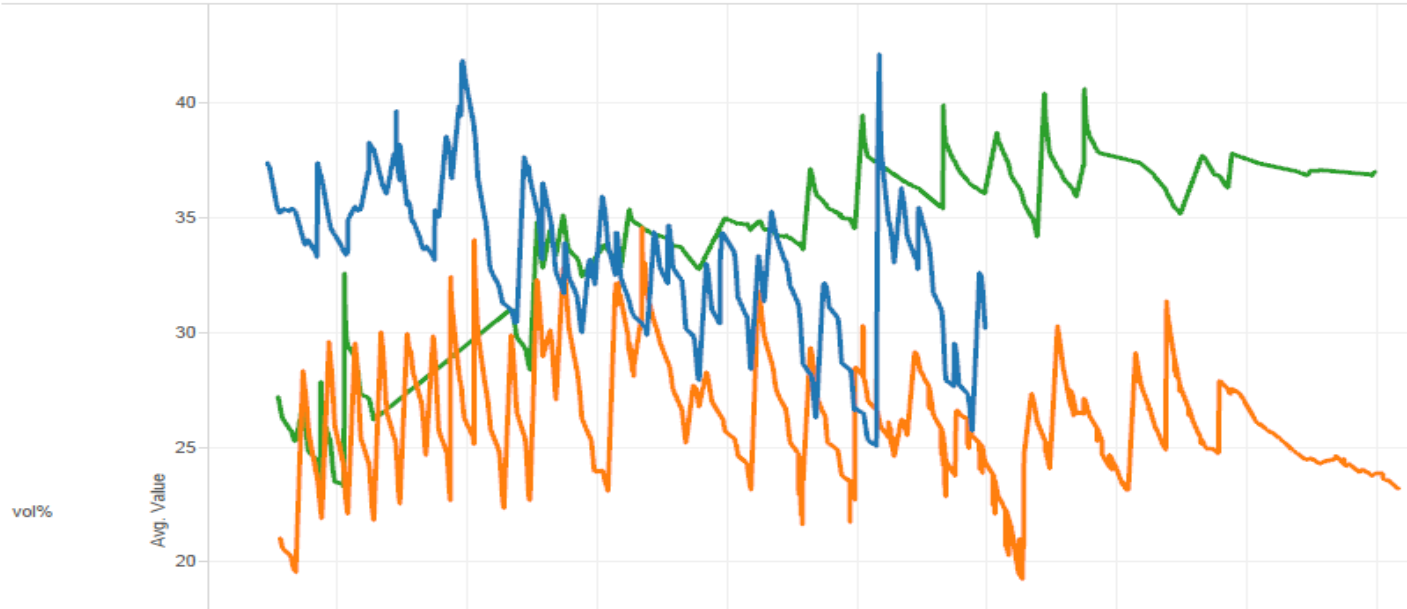
Average Water balance top 12 inches

Sheet 33

MeasureUnit

Field Name

- Grower 2
- Grower 5
- Grower 7



	% Sand	% Silt	% Clay	% Field Capacity	% Permanent Wilting Point	% avail water	gal/ac ft Avail Water	inches/ ac ft Avail Water	% Refill Avail Water	gal/ac ft Refill Avail Water	inches/ ac ft Refill Avail Water	% Refill
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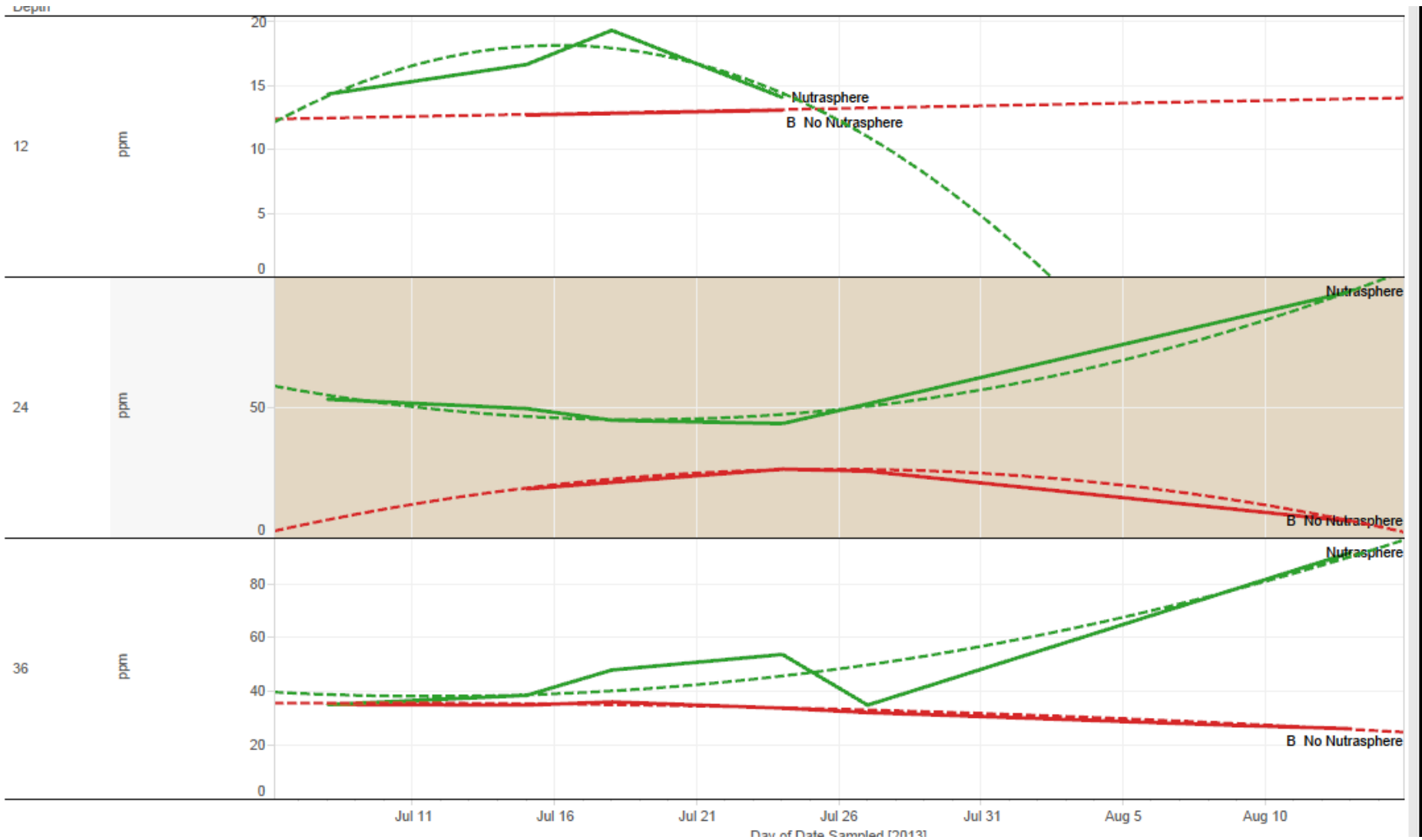
Sol-u-sampler



Sol-u-samplers Ready for Install

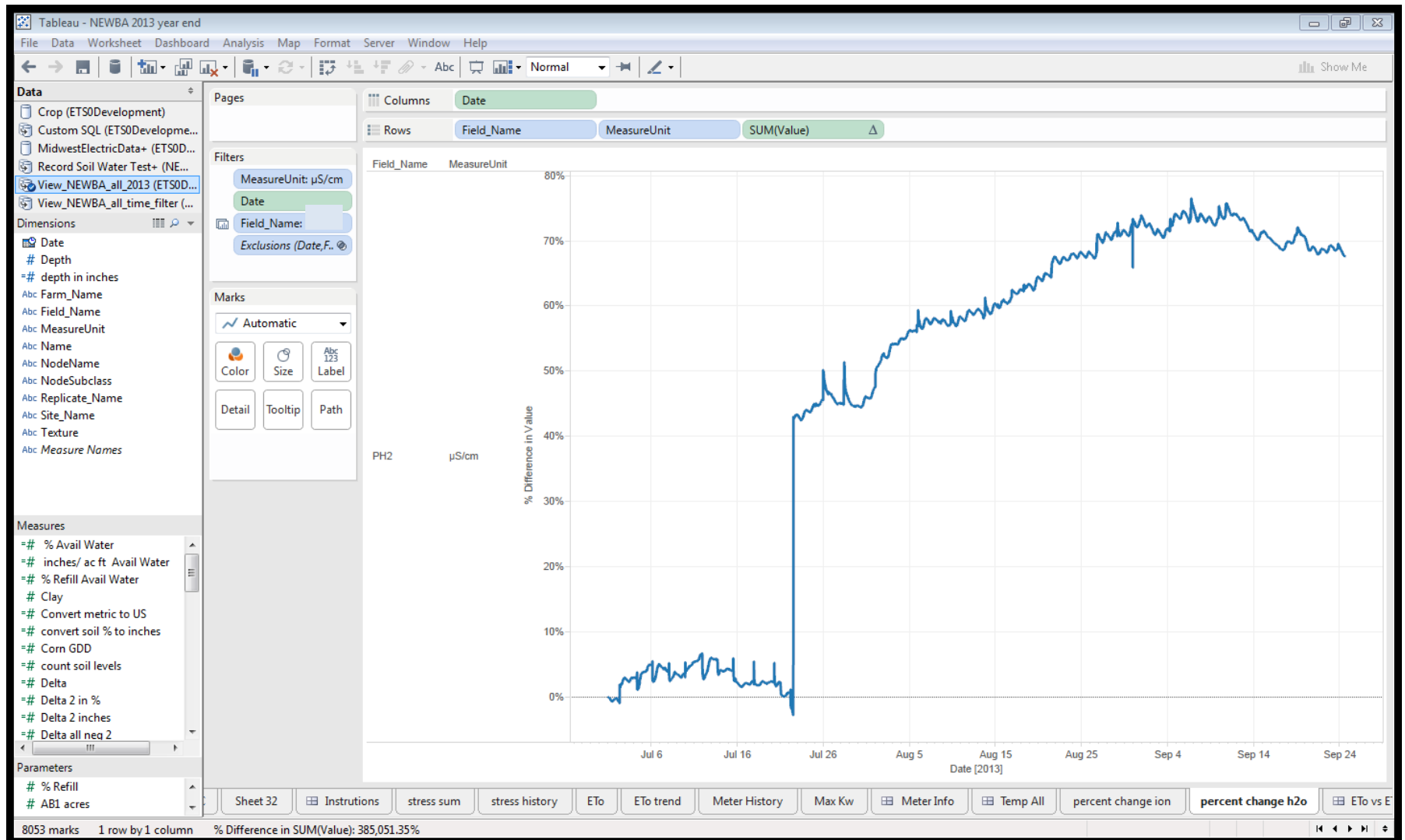


Grower 5

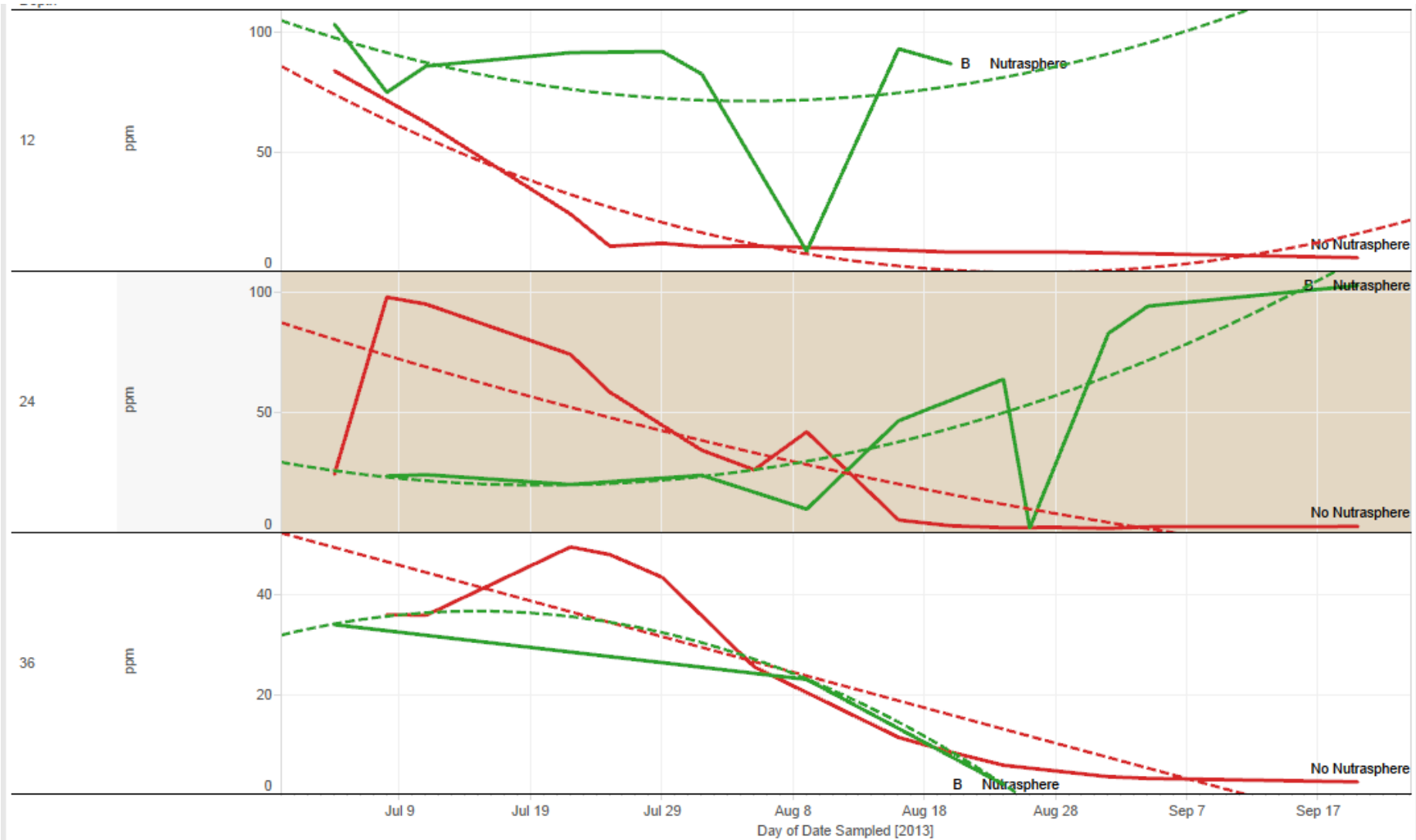


Change Ion all depths

Grower 5

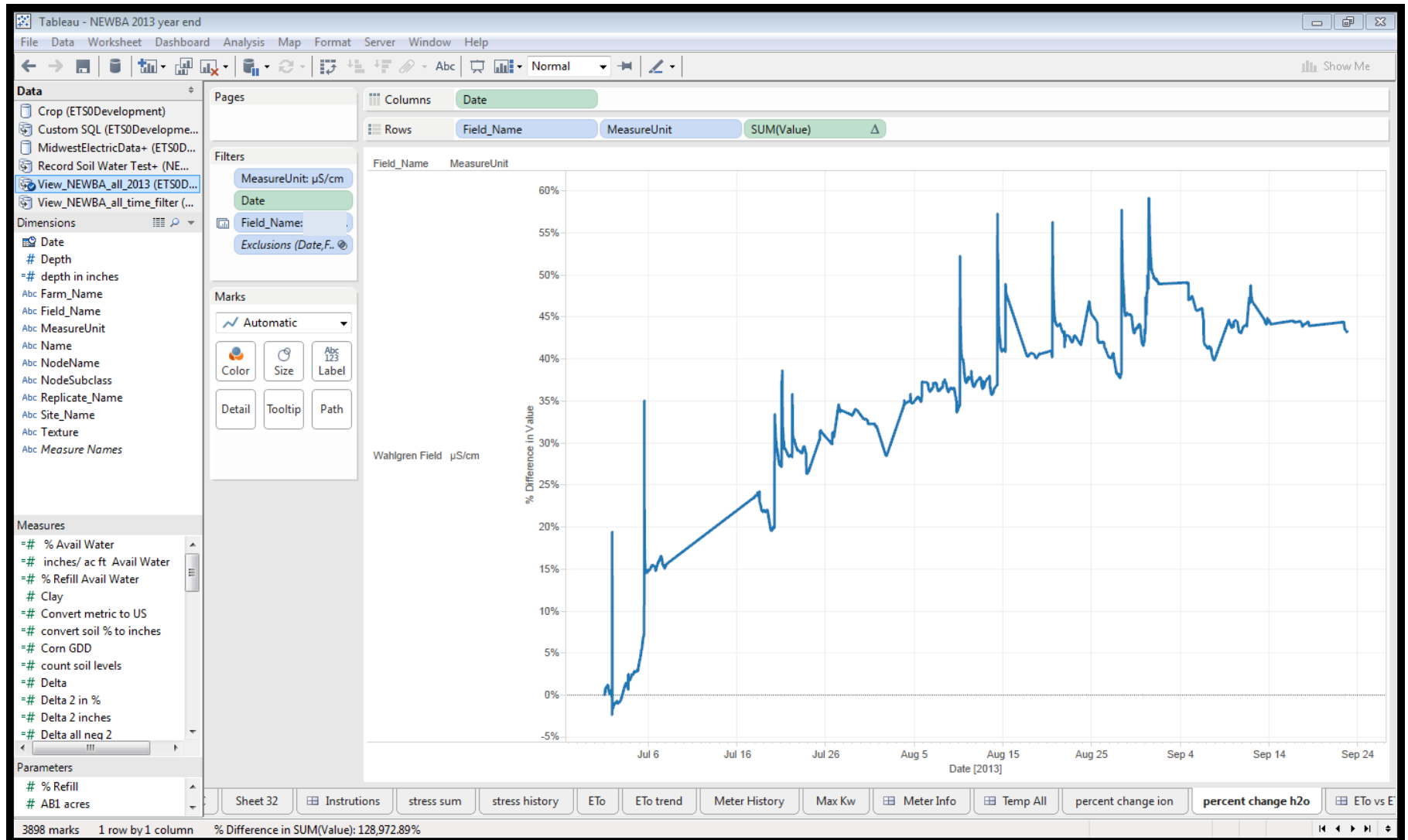


Grower 7

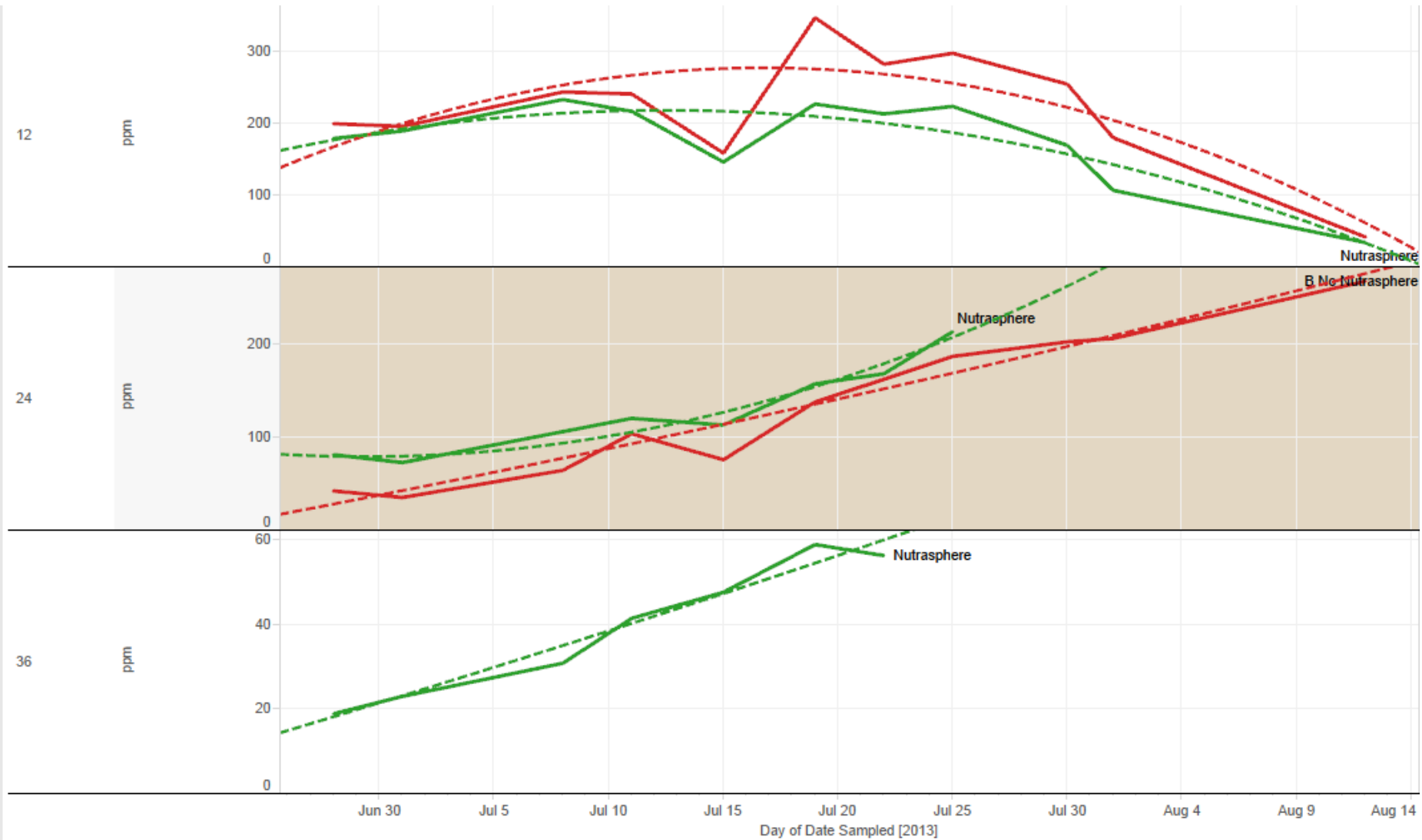


Change Ion all depths

Grower 7

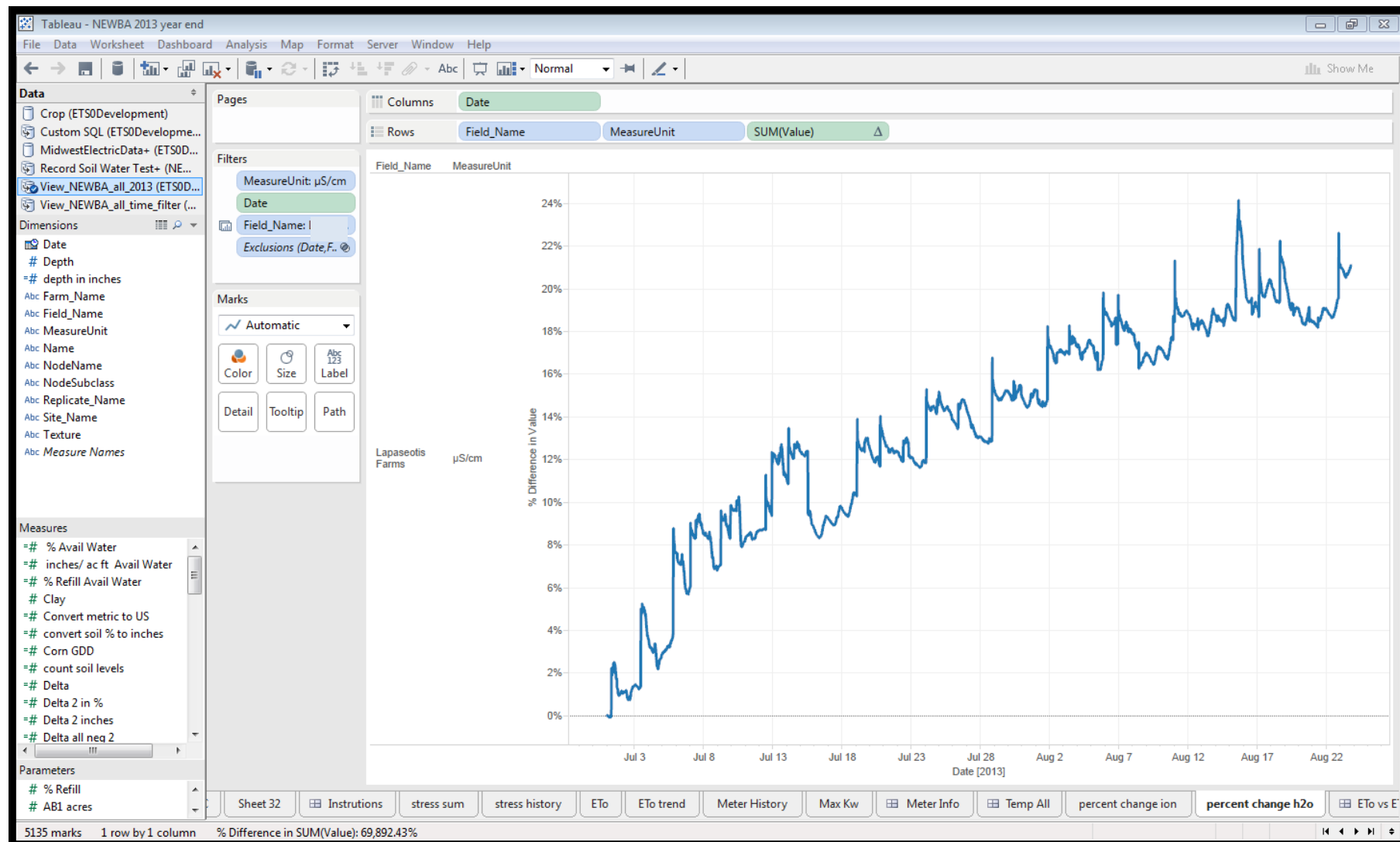


Grower 2

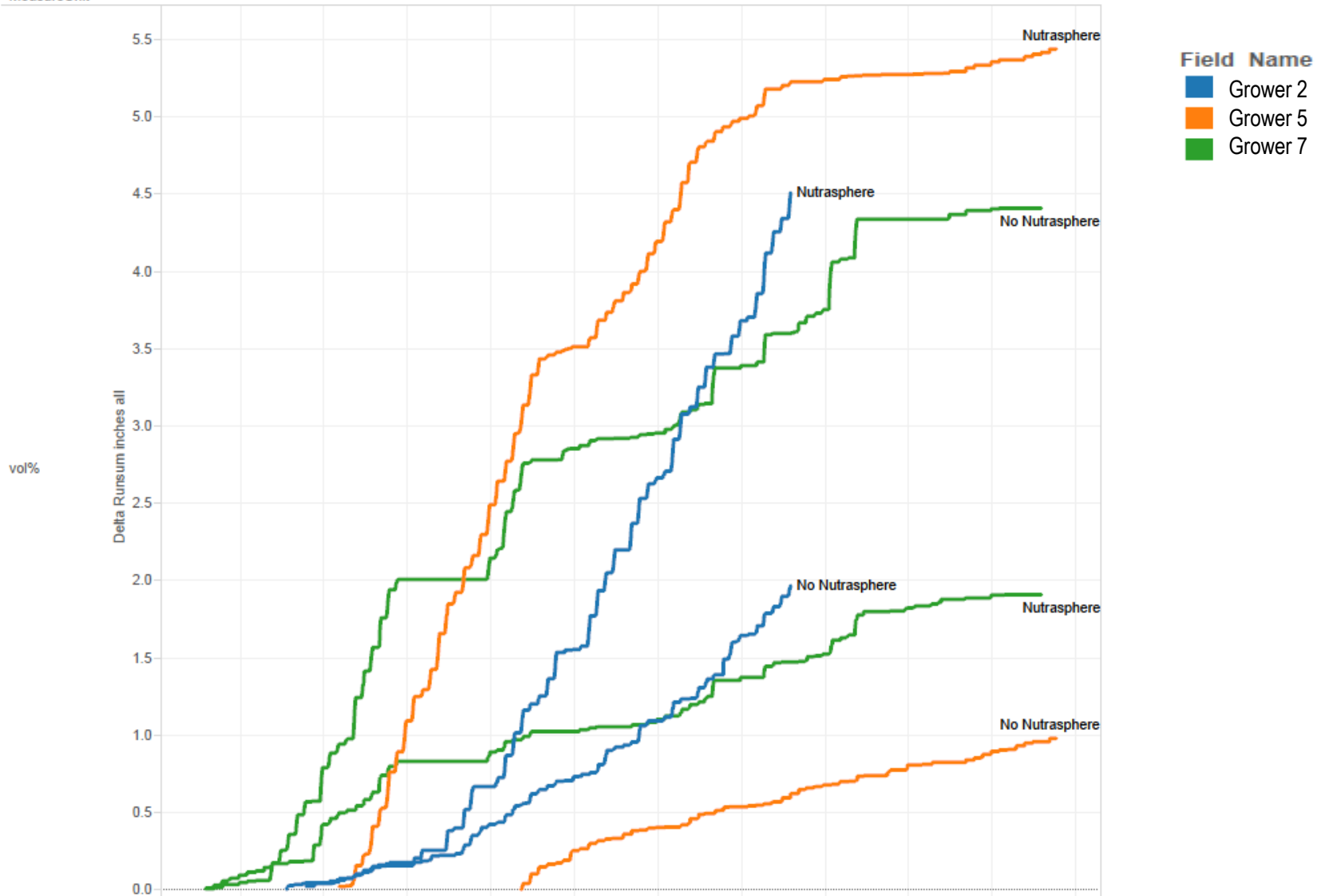


Change Ion all depths

Grower 2



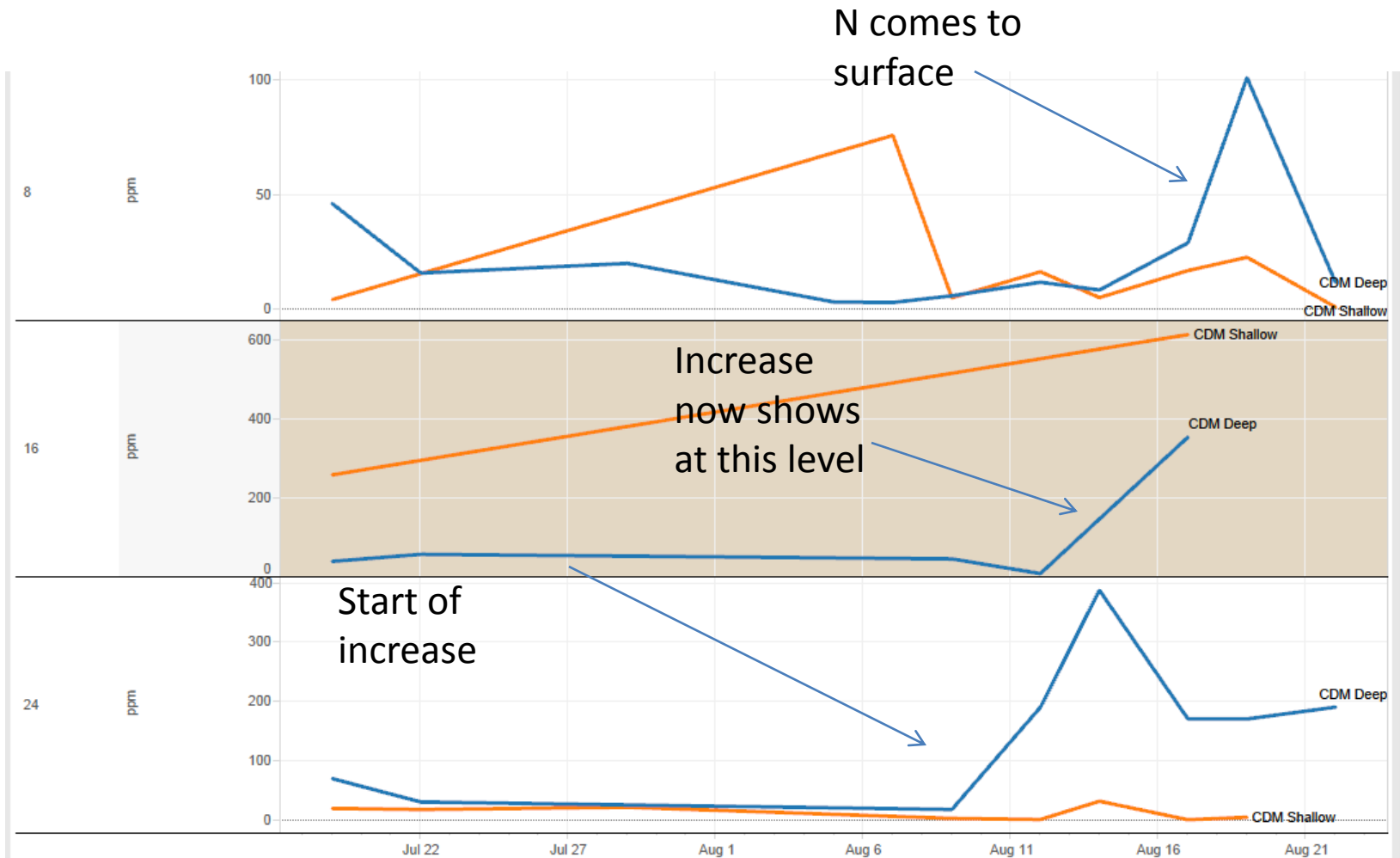
Water Uptake vs Treatment



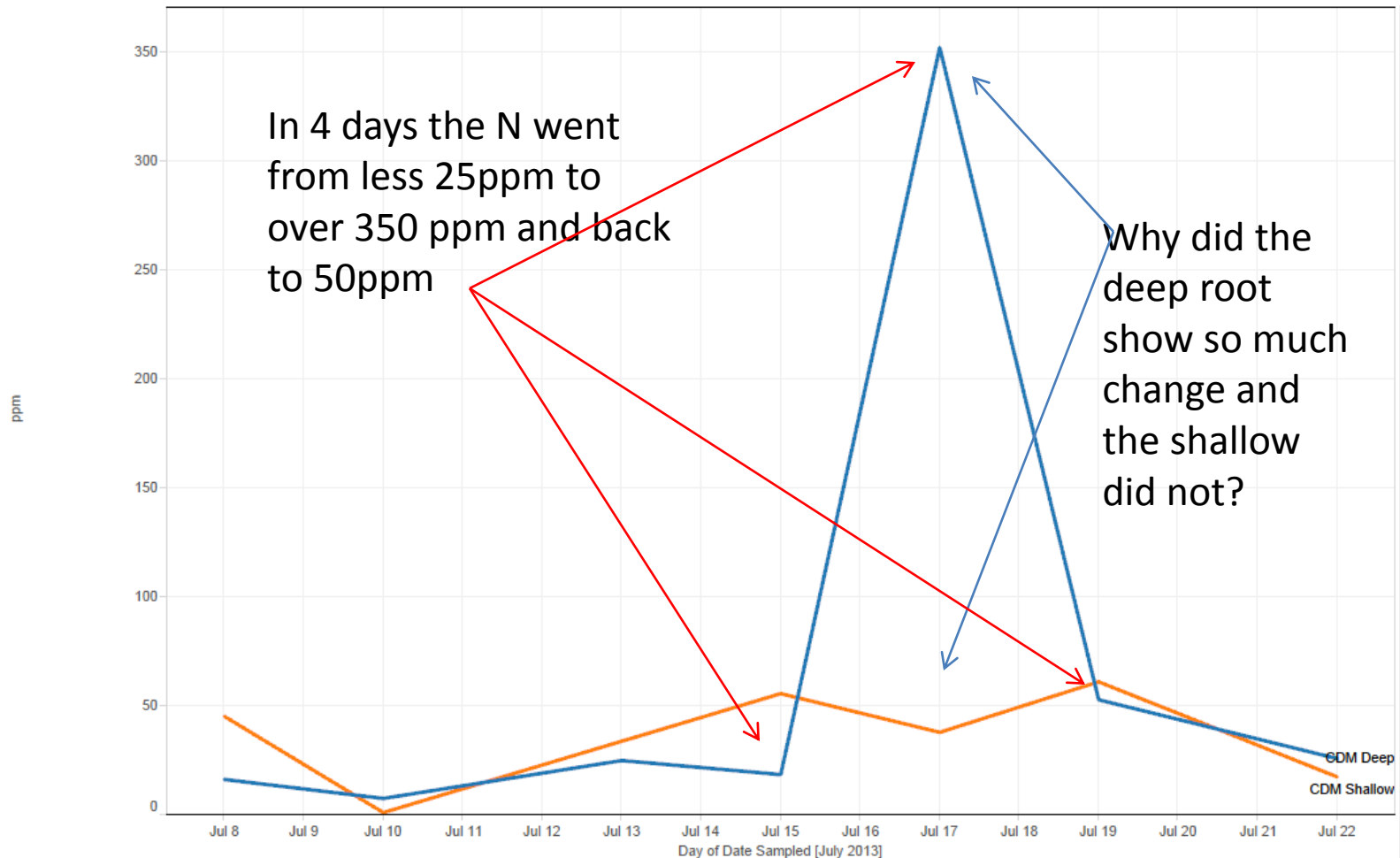
Data from Colorado Corn



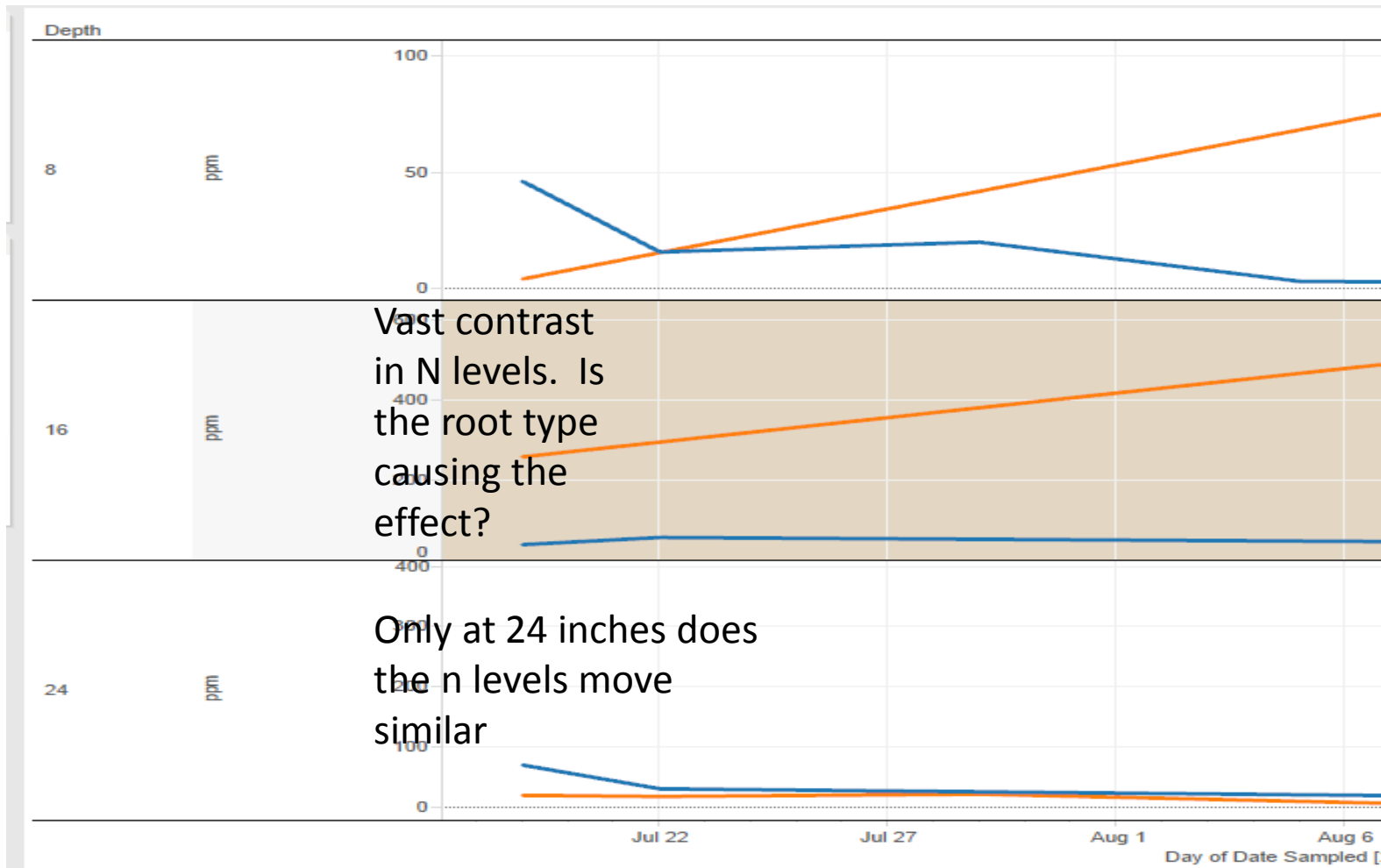
Possible upward migration of N



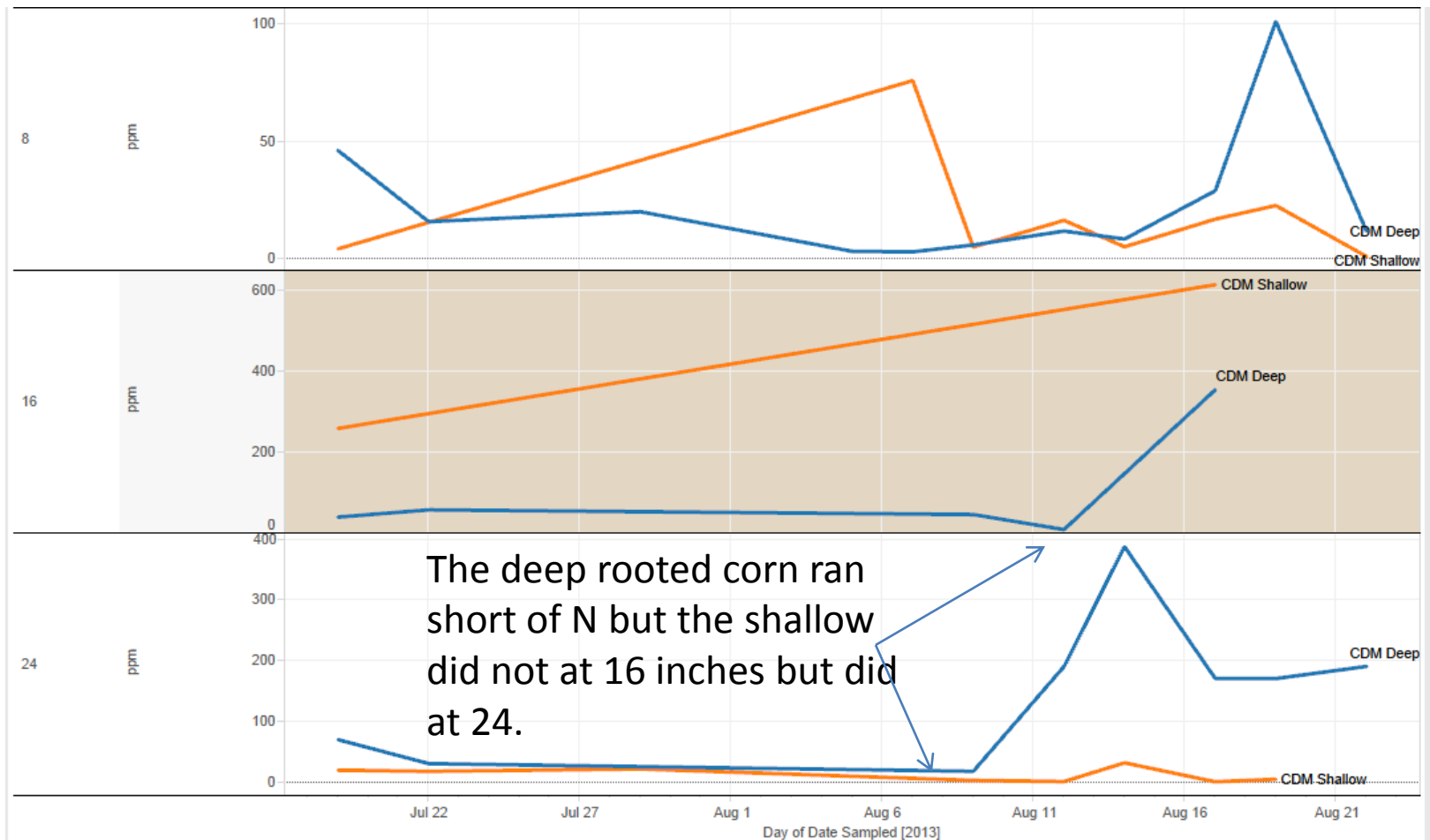
N concentration in PPM in soil water



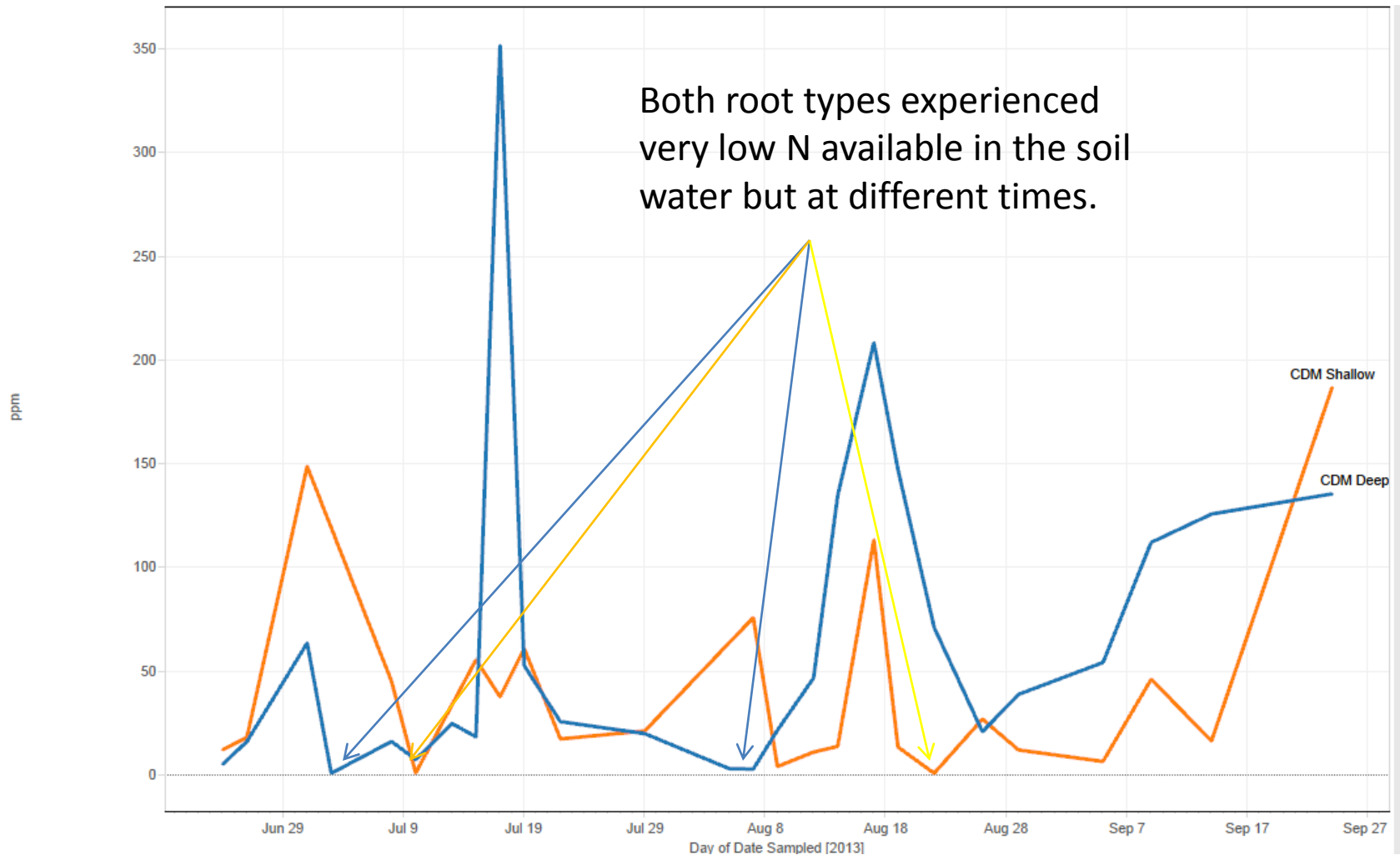
Root architecture appears to affect N levels in soil



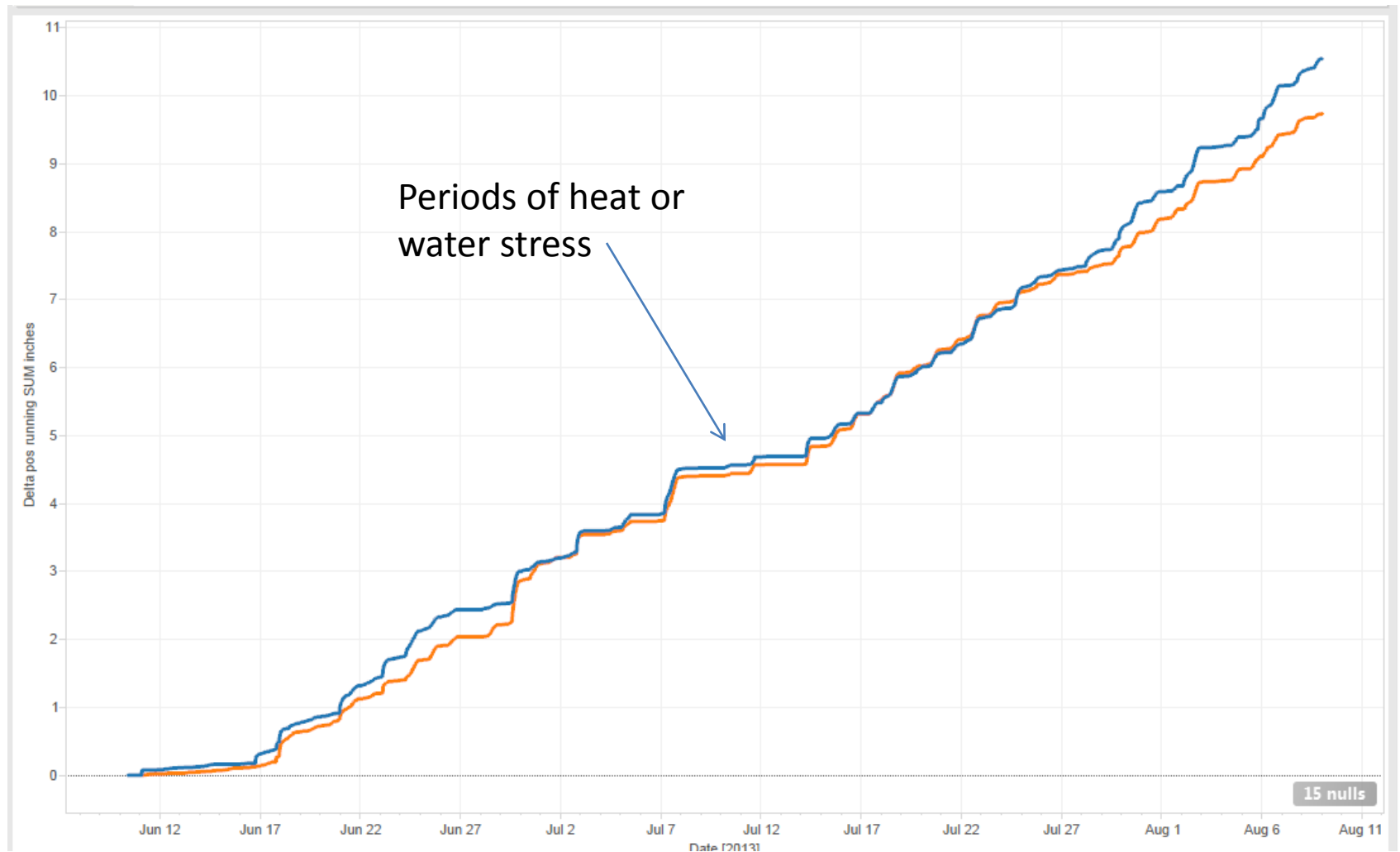
Not all roots are created equal



Total N in top 24 inches by root type



Signs of Stress



Thank You

- Questions?