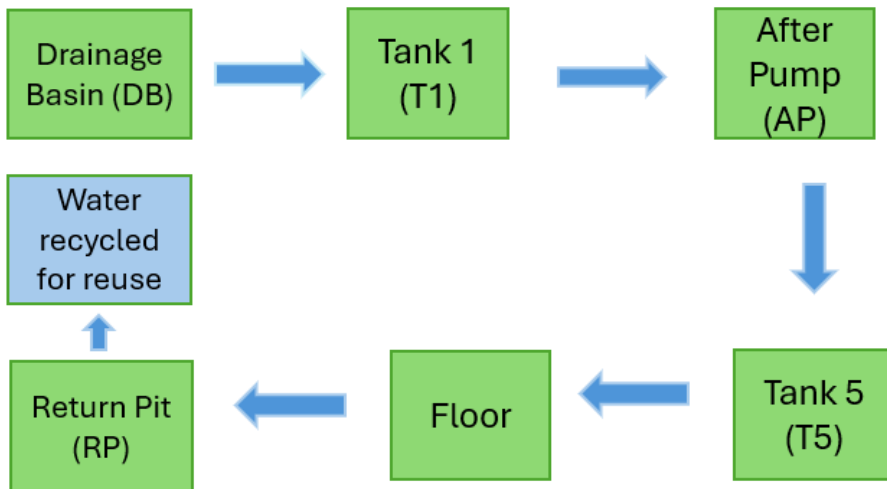


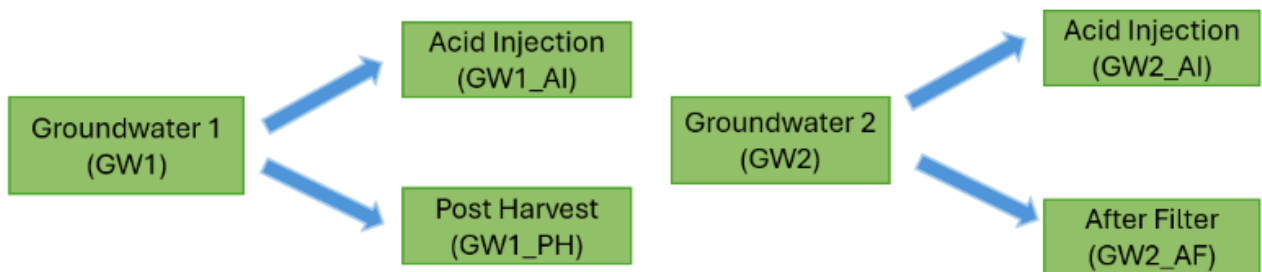
**Supplemental Data for:**  
**Under the Sustainable Radar: Tracking Nutrient Losses from Specialty Crop  
Production Systems in Ohio**  
**2025 ePLUS Report**

**System Details:**

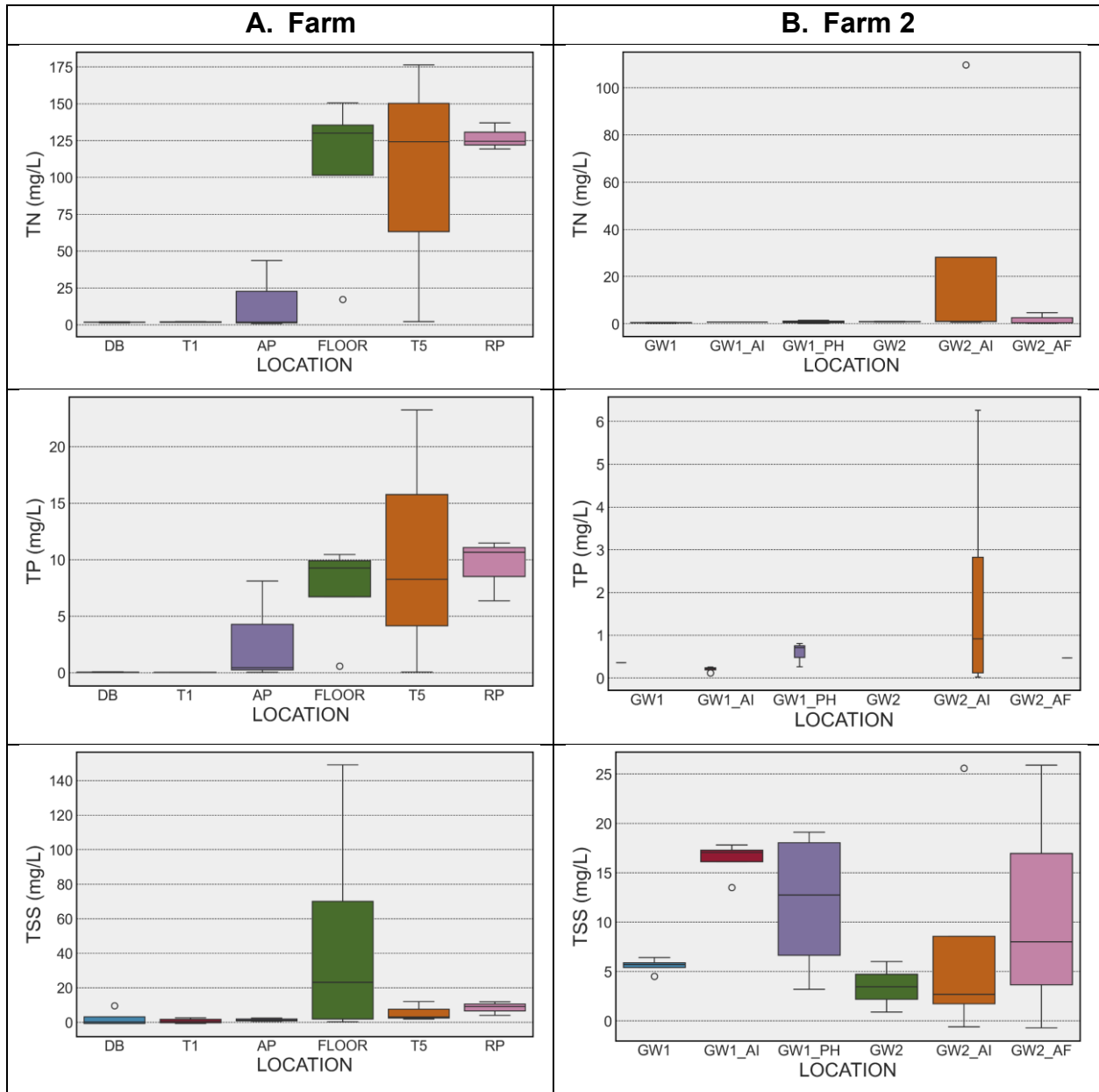
**Farm 1**



**Farm 2**



**Results:**



**Figure 1-** Total Nitrogen (TN), Total Phosphorus (TP), and Total Suspended Solids (TSS) concentrations per farm and sampling location ordered from inlet to outlet across the production system.

Results suggested significant differences and shifts in water quality throughout the production in Farms 1 and 2 (Figure 1). Farm 1 exhibited high (124 mg/L +) median concentrations of TN from Floor to RP, while fertilizer was added to Tanks 1 and 5 and distributed to Floor and Drip Irrigation systems, the amount of nutrient detect in the floor

was relatively the same at the Return pit, indicating significant nutrient losses (Table 1). Farm 2 exhibited much lower concentrations of TN when compared to Farm 1, however Farm 2 has a notable TN spike at GW2\_AI (1.05 mg/L). GW1 has a lower TN value than GW1\_PH (0.38 mg/L), suggesting TN loss from this source. GW2\_AF has lower TN concentration when compared to GW2, indicating that the filter is effective at removing TN (Table 2). Notably, TN concentrations in initial sources for both farms are high (Table 1 and 2).

TP trends in farm 1 were similar to TN trends, with high (8.28 mg/L+) concentrations from Floor to RP, (Table 1). At farm 2, TP is leaving the system in higher concentrations when compared to initial water sources (Table 2), indicating introduction of TP to the environment from both systems at Farm 2 (Table 2).

Farm 1 had little to no TSS concentration until the Floor, which exhibited a high concentration when compared to the rest of the system (43.8mg/L). Additionally, TSS concentrations are higher in T5 and RP when compared to initial water sources

For Farm 2, TSS concentrations are higher in both outlets when compared to both inlets, indicating introduction of sediment to the environment from both systems at Farm 2 (Table 2).

**Table 1 - Farm 1**

Sampling Site	Median TN (mg/L)	Median TP (mg/L)	Median TSS (mg/L)
DB	1.78	0.04	ND
T1	1.97	0.03	ND
AP	22.20	4.29	0.90
Floor	130.58	9.73	43.8
T5	124.31	8.28	3.10
RP	124.57	10.67	9.20

**Table 2- Farm 2**

Sampling Site	Median TN (mg/L)	Median TP (mg/L)	Median TSS (mg/L)
GW1	0.48	0.36	5.70
GW1_AI	0.71	0.22	17.1
GW1_PH	0.86	0.71	12.8
GW2	0.86	0.00	3.45
GW2_AI	1.05	0.91	2.70
GW2_AF	0.45	0.47	8.00

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