



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

Soil, Water, Environmental Lab (SWEL)

Urban Garden Package

Site Name: Example Site

Analyses: Lead, arsenic and cadmium = Xray fluorescence (XRF)[†]; phosphorus and potassium = Mehlich 3 (M3); pH = 1:1 soil:water extraction; organic matter = loss on ignition

All results are in ppm (mg/kg) except for pH (unitless) and OM (%).

Analyte	Value	Optimal Range	Interpretation	Recommendation
Lead	423	<300 [†]	Moderate Pb	Grow fruiting vegetables only. Mulch or cover all exposed soil. See swel.osu.edu/treatment for management and treatment recommendations.
Arsenic	17	<41 [‡]		
Cadmium	2.7	<39 [‡]		
Organic Matter	3.4%	2%	Sufficient	
pH	6.6	5.5-8.0	Sufficient	
Phosphorus	99	35-150 [§]	Sufficient	
Potassium	113	115+ [§]	Low	Apply 0.5 lbs/100 square feet
Nitrogen	Nitrogen should be added to a garden every year. Add 4oz N per 100sq ft. Apply as a slow release fertilizer before planting or in 2-3 applications over the season.***			

[†] XRF analysis is conducted on bulk soil and should be considered a screen only. In-house testing suggests results are within 20% of USEPA Method 3051a using ground soil, the standard test for soil metals. If heavy metal results exceed the Optimal Range values, we suggest resampling and confirming results with USEPA Method 3051a or USEPA Method 6200.

[‡] Values from USEPA Part 503 Biosolids Rule.

[§] Ratings for NPK obtained from Midwest Vegetable Production Guide tomato nutrient recommendations.