WSDA HEAVY METALS TEST REQUIREMENTS

SUBMIT THIS GUIDE WITH YOUR SAMPLE TO YOUR LAB!

Note to Registrant:

1. Washington State heavy metals calculations are rate based, not concentration based. As a result, some products require a lower detection limit and/or application limits on the label.
   - If you have a nutrient with a high percentage in the Guaranteed Analysis (GA), you may be able to have higher detection limits.
   - If all of the nutrients have a low percentage in the GA, you must test with lower detection limits. Low nutrients are common in organic based fertilizers and products specifically designed for Hydroponic and Continuous Liquid Feed.
2. To see if your detection limits are too high, use the heavy metals calculator. https://agr.wa.gov/departments/pesticides-and-fertilizers/fertilizers/metal-analysis.
3. Metals that commonly fail due to high detection limits include Molybdenum (Mo) and Selenium (Se).
4. If available from your lab, request a Washington State heavy metals test. If not, make sure the lab utilizes the appropriate methods for all nine metals.
5. Indicate the product name on each report.
6. If the product is subject to Ecology review (waste-derived or micronutrient fertilizers) you must perform the tests as required on the Ecology Questionnaire in addition to the WSDA heavy metals test.

Note to laboratory:

1. Only use the methods and revisions approved by WSDA as noted in the table below.
2. The report must include:
   - Digestion/Preparation method(s) and revision(s) used.
   - Analysis method(s) and revision(s) used.
   - A detection limit (MDL, RL, PQL, etc.) for each element. Do not list results below this limit.
   - Units (ppm or mg/kg)
   - Results for all nine metals, either:
     - value above reporting limit, or
     - BDL(Below Detection Limit), ND (Not Detected), <value, etc.
3. **Mercury requires a separate test.**
   Except when testing with Inductively Coupled Plasma – Mass Spectrometry (ICP-MS)

Accepted Methods*	ICP-MS	AOAC	EPA SW-846				Suggested minimum detection limits for low guarantee products in ppm** (eg. 1% Nitrogen)
Digestion/Prep ▶ For all except Mercury	200.8	2006.03	3050B	3010[1]	3020[1]	3051[2]	
Analytical Methods ▼							
Arsenic (As)	200.8	2006.03	6010	6020	7060A	7061A	5
Cadmium (Cd)	200.8	2006.03	6010	6020	7130	7131A	1
Cobalt (Co)	200.8	2006.03	6010	6020	7200	7201	5
Mercury (Hg)	***200.8***		***7470A***	***7471A***	***7473***	***7474[2]***	***0.1***
Molybdenum (Mo)	200.8	2006.03	6010	6020	7480		1
Nickel (Ni)	200.8	2006.03	6010	6020	7520	7521	10
Lead (Pb)	200.8	2006.03	6010	6020	7420	7421	40
Selenium (Se)	200.8	2006.03	6010	6020	7740	7741A	1
Zinc (Zn)	200.8	2006.03	6010	6020	7950	7951	150

*Any subsequent revision (letter) to the methods listed above will be accepted by WSDA. Earlier revisions will **NOT** be accepted.

**If guarantee is less than 1% nutrient, use detection limits lower than those stated in this table.

[1] Liquids Only

[2] Solids Only

More information can be found at: https://agr.wa.gov/departments/pesticides-and-fertilizers/fertilizers/product-registration or emailing the fertilizer customer service desk at fertreg@agr.wa.gov or call 360-902-2025. AGR PUB 707-382 (R/8/24)