

MAR 22, 2023

OPEN ACCESS

DOI:

dx.doi.org/10.17504/protocol s.io.3byl4jkbolo5/v1

Protocol Citation: maggie.bo wman 2023. Phosphorus Extraction - Bray Method. **protocols.io**

https://dx.doi.org/10.17504/protocols.io.3byl4jkbolo5/v1

License: This is an open access protocol distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working

Created: Oct 06, 2022

Last Modified: Mar 22, 2023

PROTOCOL integer ID:

70965

1 Print the required labels needed for Bray extraction for each site, depth, and replicate.

Phosphorus Extraction - Bray Method

In 2 collections

maggie.bowman1

¹Environmental Molecular Sciences Laboratory



nicholas.sconzo

ABSTRACT

The method estimates the relative bioavailability of inorganic ortho-phosphate (PO4-P) in soils with acid to neutral pH.

MATERIALS

- <u>Z</u> 50 mL polypropylene centrifuge tube (3 per site and depth)
- 🔼 15 mL polypropylene centrifuge tube (3 per site and depth)
- ~ 🗸 12 g of fresh soil
- Bray extract solution (See OSU Soil health lab protocol for making extraction solution)
- <u>A</u> 25 mL pipet
- Electronic pipettor
- Centrifuge
- Shaker

- **1.1** 1000S_SITE_P_BRAY_DEPTH_REPLICATE
- 1.2 1000S_SITE_Pext_BRAY_DEPTH_REPLICATE
- **2.1** For example: 1000S_PRS1_P_Bray_TOP_1
- Add <u>I 14 mL</u> of Bray Extract solution (in cabinet under hood in 1521) using the pipet and electronic pipettor.
- 4 Cap the samples and shake to mix. Add samples to foam block on shaker.
- 5 Shake samples at (5 1000 rpm, 00:05:00
- 6 Centrifuge samples (using centrifuge on west side of 1521) for § 4000 rpm, 00:08:00
- Pour off liquid into a clean and labelled A 15 mL centrifuge tube.

8m

- 7.1 For example: 1000S_PRS1_Pext_Bray_TOP_1
- Freeze samples on their side to prevent tube breaking in the 2) bottom shelf if unable to filter immediately.
- 9 Follow sample filtering protocol below when ready to filter extracts.