

CEMA 216 — SOIL HEALTH TESTING

Quantitative Soil Health Testing for NRCS Regenerative Pilot Program

The USDA NRCS Regenerative Pilot Program requires participating growers to complete quantitative soil health testing as part of their enrollment. Under CEMA 216, this means measuring five core soil processes that reflect the overall health of the soil ecosystem. Both packages below satisfy the CEMA 216 requirements — the Advanced panel adds a comprehensive nutrient analysis for growers who want deeper insight.

CORE

Core CEMA 216 Panel

Package #173 · Core panel

Fulfills all 5 required CEMA 216 soil processes. Standard choice for most NRCS program participants.

5 REQUIRED SOIL PROCESSES + INTERPRETIVE CHARACTERISTICS

Sample Preparation

Air-drying, grinding, sieving (2 mm / #10 mesh)

Wet Aggregate Stability

Cornell Sprinkle Infiltrometer

Total Organic Carbon

Dry combustion — Elementar vario macro cube

Soil Respiration

Incubation + CO₂ quantification by Picarro at 24h & 96h

Labile C (PoXC)

Permanganate Oxidizable Carbon

Bioavailable N (ACE Protein)

Autoclaved Citrate Extractable soil protein index

Soil Texture

Hydrometer method

Soil pH

1:1 soil:water

ADVANCED

Advanced CEMA 216 Panel

Package #157 · Core + nutrient panel

Everything in the Core Panel plus full nutrient analysis. Ideal for producers who want detailed nutrient management data alongside CEMA 216 compliance.

INCLUDES ALL OF PACKAGE #173, PLUS:

pH + Electrical Conductivity (EC)

1:1 soil:water ratio

Nitrate (NO₃-N)

2M KCl extraction + colorimetric analysis

Nutrients: P, K, Ca, Mg, Mn, Fe, Cu, Zn

Mehlich-3 extraction + ICP-OES analysis

1-15 SAMPLES

\$160

per sample

16+ SAMPLES

\$155

per sample

1-15 SAMPLES

\$135

per sample

16+ SAMPLES

\$130

per sample

OPTIONAL ADD-ON — EITHER PACKAGE

β-Glucosidase Enzyme Assay

Fluorometric measurement of microbial carbon cycling potential

+\$29 / +\$23 per sample

\$29/sample (1-15 samples) · \$23/sample (16+ samples)

Hawaii & some California counties: Additional USDA-APHIS quarantine fees apply — \$42–\$52/sample (1–15 samples) or \$35–\$45/sample (16+ samples). Contact the lab before shipping. An APHIS permit must accompany all quarantine soil samples.

SUBMISSION INSTRUCTIONS & TURNAROUND

How to submit

- 1** Complete a CEMA 216 Soil Sample Submission Form (available on the OSU SHL website). Include your county and state of collection.
→ *Submission form included on the next page.*
- 2** Place sample in a plastic Ziplock bag — collect 2–3 cups of soil (or over 50% of a 1-gallon bag).
- 3** Label each bag with a date and numeric ID. Email the lab your ID list if submitting 16+ samples.
- 4** Refrigerate samples immediately after collection. Use ice packs when shipping in summer heat.
- 5** Ship Monday or Tuesday to avoid weekend delivery delays.
- 6** Include the completed submission form inside your shipment.

Shipping Address

OSU Soil Health Lab
3017 Ag Life Science Bldg
2750 SW Campus Way
Corvallis, OR 97331

Turnaround

Turnaround time varies by season. Summer (May–Sep) is busiest — expect 4–6 weeks. Email the lab for current estimates.

Outside Oregon? Contact the lab before sending — samples may require an APHIS Quarantine Permit.

Payment

An invoice will be emailed to you once we have received your samples. The invoice can be paid online through OSU's online payment portal.

CEMA 216 Soil Sample Submission Form

Included on the following page — print, complete, and include with your shipment.

▼ See next page

REQUIRED:
ORIGIN OF SOIL
State:
County:
Contact us BEFORE sending samples from CA or HI.

Soil Health Laboratory
Soil Sample Submission Form



Oregon State University - Crop and Soil Science Department
541-737-2187 | soil.lab@oregonstate.edu | cropandsoil.oregonstate.edu/shl
Mailing Address: 3017 Agricultural Life Science Bldg; Corvallis, OR 97331-7306

Name: _____
 Organization: _____
 Please circle: Researcher Student Grower
 Billing Address: _____
 City, State, Zip: _____
 Phone: _____
 Email: _____

Number of samples: _____
 Date Submitted: _____
Date results needed: _____

Analysis package (please place a checkmark next to one)	
<input type="checkbox"/>	CORE Soil Health Suite (#173) Wet Aggregate Stability, Total Organic Carbon, Soil Respiration, Labile C (PoXC), Bioavailable N (ACE Protein), Soil texture (Hydrometer), soil pH (1:1 soil:water)
<input type="checkbox"/>	ADVANCED Soil Health Suite (#157) Everything listed in CORE Soil Health Suite (#173) plus pH+EC, NO3-N, P, K, Mg, Ca, Cu, Fe, Mn, Zn

Additional charges	
<input type="checkbox"/>	Quarantine - contact lab for information

Additional Analyses	
<input type="checkbox"/>	Other: _____
<input type="checkbox"/>	Other: _____
<input type="checkbox"/>	Other: _____

Optional Add Ons	
<input type="checkbox"/>	Beta-glucosidase enzyme assay