



Soil Biology Report

North pasture transect, 0-6 in

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Client	Example Client	Sample	North pasture transect, 0-6 in
Business	Example Ranch	Sample type	Soil
Location	Central New Mexico	Date pulled	2026-10-12
Email		Date observed	2026-10-14
Plants present / desired	Orchardgrass, smooth brome, alfalfa / diverse perennial pasture		

Results are per gram of dry soil (nematodes per 100 g). Wake-Up test: included (re-tested after 48 h at field capacity).

Summary

Your soil biology is active and improving since last fall: fungi have roughly doubled, protozoa are above the reference level, and predatory nematodes are increasing, a sign of a maturing food web. Fungi are still well below the minimum for a perennial pasture, and protozoa tripled after rewetting, so much of this life is waiting on water. What would it take to keep roots growing and the soil covered through the dry months?

Measure	Unit	As received	Wake-Up (48 h)	Change	Rating	Consistency
Fungi and oomycetes						
Fungal biomass	µg/g	69.6	105.5	1.5×	LOW	Very poor
Mean fungal diameter	µm	3.1	3.0			
Oomycete biomass	µg/g	5.0	7.0	1.4×		Very poor
Bacteria						
Bacterial level (band)	band	MODERATE	HIGH			Good
Bacterial index (indicative only)	µg/g	1,190	2,475	2.1×		
F:B ratio (indicative only)	ratio	0.06	0.04			
Protozoa						
Flagellates	no./g	24,014	87,624	3.6×		Very poor
Amoebae	no./g	8,865	24,746	2.8×		Very poor
Ciliates	no./g	4,040	9,736	2.4×	OK	Very poor
Total protozoa	no./g	36,919	122,105	3.3×	MEETS MIN	
Nematodes (Baermann extraction, as received)						
Bacterial-feeding	no./100 g	126	—		PRESENT	
Needle-feeding (plant or fungal)	no./100 g	54	—		PRESENT	
Predatory (incl. omnivores)	no./100 g	18	—		PRESENT	
Other observations (present)						
As received	Fungal spores, Protozoan cysts, Microarthropods					
Wake-Up (48 h)	Fungal spores, Protozoan cysts, Microarthropods, Rotifers					

How to read this report: see the Interpretation Notes that came with it. Ratings compare as-received results with reference values. Change = Wake-Up ÷ as received. Consistency = how evenly organisms were spread across the fields viewed; Poor or Very poor often just means an organism was scarce. Method: brightfield microscopy at approximately 400x total mag.; nematodes by 48-hour Baermann extraction (active nematodes only). Bacteria are shown as a band because cell size and clay particles limit precision at this magnification. Oomycetes are fungus-like organisms; some cause plant disease, but microscopy cannot tell which kind is present.

Statistical detail

The 95% range is where the true average for the slide very likely lies, given how much counts varied from field to field. It does not include sampling or dilution error.

Measure	Test	Result	SD % of mean	95% low	95% high	Unit
Fungal biomass	As received	69.6	142%	28.8	110.3	µg/g
	Wake-Up	105.5	122%	52.4	158.5	µg/g
Oomycete biomass	As received	5.0	333%	0.0	12.0	µg/g
	Wake-Up	7.0	308%	0.0	16.0	µg/g
Flagellates	As received	24,014	121%	11,971	36,058	no./g
	Wake-Up	87,624	80%	58,599	116,648	no./g
Amoebae	As received	8,865	190%	1,917	15,813	no./g
	Wake-Up	24,746	131%	11,350	38,142	no./g
Ciliates	As received	4,040	347%	0	9,830	no./g
	Wake-Up	9,736	236%	247	19,225	no./g
Bacterial index	As received	1,190	27%	785	1,594	µg/g
	Wake-Up	2,475	20%	1,870	3,079	µg/g

Ashed-soil background subtracted from the bacterial index (µg/g): as received 120, Wake-Up 120.

Soil Biology Trends

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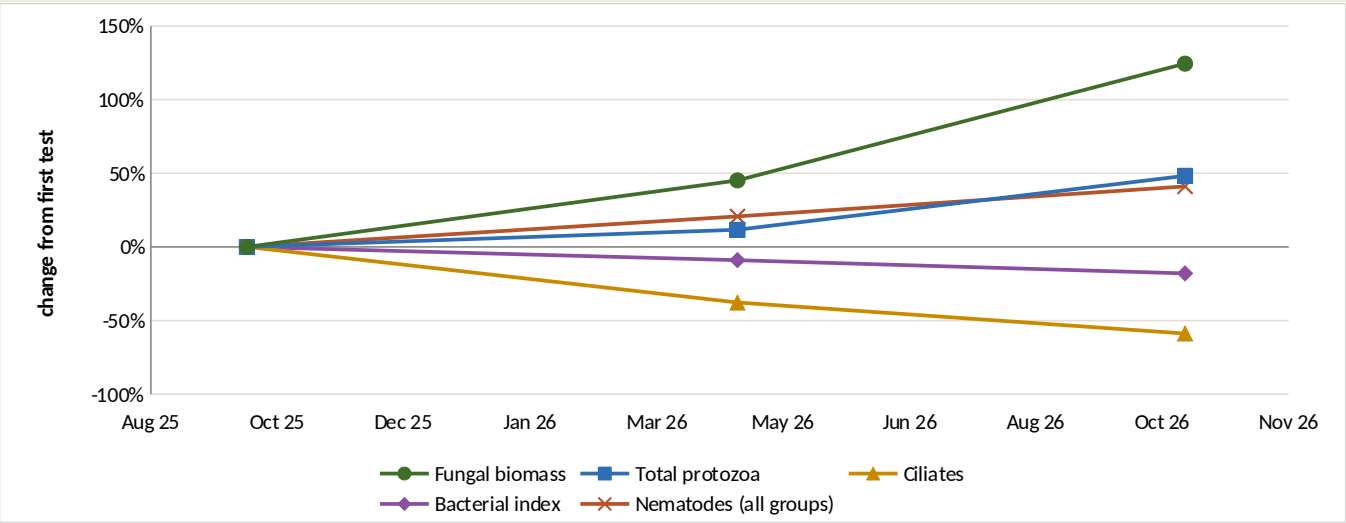
Client: Example Client · Tests compared: 3 · As-received results, per gram of dry soil (nematodes per 100 g)

Baseline and current

Measure	Unit	Baseline	Previous	Current	Change since baseline
Date		Oct 2025	Apr 2026	Oct 2026	
Fungal biomass	µg/g	31.0	45.0	69.6	▲ +124%
Oomycetes	µg/g	6.0	5.1	5.0	▼ -16%
Flagellates	no./g	12,000	16,500	24,014	▲ +100%
Amoebae	no./g	3,100	5,200	8,865	▲ +186%
Ciliates	no./g	9,800	6,100	4,040	▼ -59%
Total protozoa	no./g	24,900	27,800	36,919	▲ +48%
Bacterial level (band)	band	HIGH	MODERATE	MODERATE	
Bacterial index (indicative)	µg/g	1,450	1,320	1,190	▼ -18%
Bacterial-feeding nematodes	no./100 g	70	98	126	▲ +80%
Needle-feeding nematodes	no./100 g	64	60	54	▼ -16%
Predatory nematodes	no./100 g	6	11	18	▲ +199%

▲/▼ show direction only. Up is not always better: rising ciliates or oomycetes is a warning sign. Bacterial values are estimates; read them as a band. Trends are only meaningful when samples come from the same spots, depth and season each time.

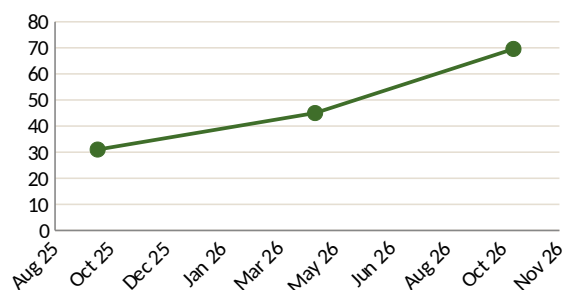
Change from the first test



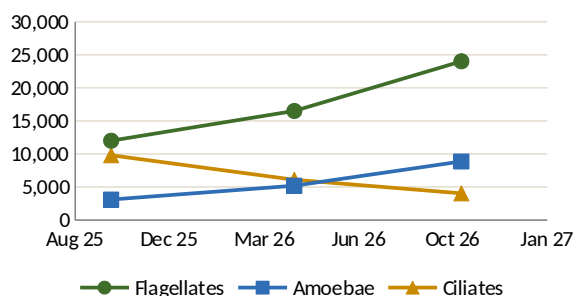
Each line starts at 0% on the first test. A point at +100% means double the first value; -50% means half. A measure that was zero at the first test can't be shown as a percentage.

Each measure over time

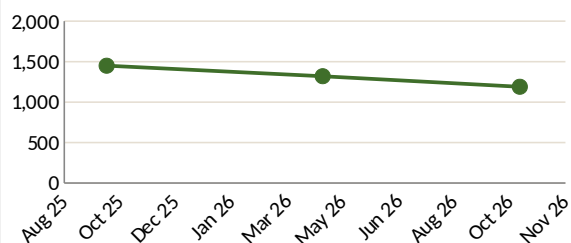
Fungal biomass (µg/g)



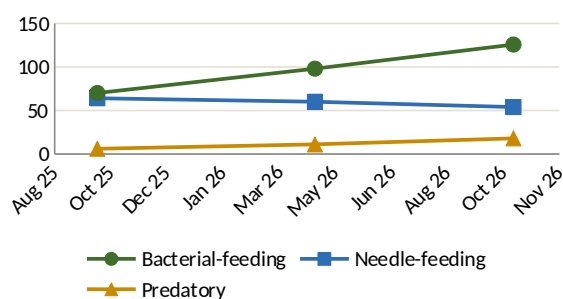
Protozoa (no./g)



Bacterial index (µg/g, indicative)



Nematodes (no./100 g)



All results, side by side

Measure	Unit	Oct 25	Apr 26	Oct 26
Fungal biomass	µg/g	31.0	45.0	69.6
Oomycetes	µg/g	6.0	5.1	5.0
Flagellates	no./g	12,000	16,500	24,014
Amoebae	no./g	3,100	5,200	8,865
Ciliates	no./g	9,800	6,100	4,040
Total protozoa	no./g	24,900	27,800	36,919
Bacterial level (band)	band	HIGH	MODERATE	MODERATE
Bacterial index (indicative)	µg/g	1,450	1,320	1,190
Bacterial-feeding nematodes	no./100 g	70	98	126
Needle-feeding nematodes	no./100 g	64	60	54
Predatory nematodes	no./100 g	6	11	18

The last filled column is the current test. Blank columns are room for future tests.