

DIY Soil Nitrogen Checklist

Test Your Soil's Nitrogen in 10–20 Minutes

General Preparation

- ☐ Choose a testing spot (avoid recently fertilized areas)
- ☐ Collect ½ cup soil from 3–4 inches deep
- ☐ Air-dry soil if wet or muddy

Method 1: Salt-Water Extraction + Indicator Pad

You'll Need:

- ☐ 1 cup distilled water
- ☐ ½ tsp table salt
- ☐ Measuring cup
- ☐ Jar or cup
- ☐ Coffee filter or mesh strainer
- ☐ Nitrate indicator pad

Steps:

- ☐ Mix salt and water completely
- ☐ Add 1 part soil to 2 parts salt solution
- ☐ Let sit for 5 minutes
- ☐ Filter slurry into a clean container
- ☐ Dip nitrate test pad for 1–2 seconds
- ☐ Compare color with chart

Result:

- ☐ Low (light pink)
- ☐ Adequate (bright red)
- ☐ High (maroon)

Method 2: Pool Test Strips

You'll Need:

- ☐ Pool nitrate test strip
- ☐ 1 cup soil + 2 cups distilled water
- ☐ Container & spoon

Steps:

- ☐ Mix soil and water well
- ☐ Let settle for 5–10 minutes
- ☐ Dip strip and compare color

Result:

- ☐ Low
- ☐ Ideal
- ☐ High

Method 3: Vinegar + Baking Soda Reagent

You'll Need:

- ☐ White vinegar
- ☐ Baking soda
- ☐ 2 jars
- ☐ Soil sample

Steps:

- ☐ Jar 1: Add 2 tbsp soil + vinegar → bubbles?
- ☐ Jar 2: Add 2 tbsp soil + water slurry + baking soda → bubbles?

Reaction strength:

- ☐ Weak (low nitrogen)
 - ☐ Moderate (some N activity)
 - ☐ Strong bubbling (high N content)
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Interpretation Guide

Crop Type	Low (<10 mg/kg)	Ideal (10–20 mg/kg)	High (>25 mg/kg)
Leafy Greens	✗	✓	⚠ Risk of burn
Tomatoes	✗	✓	⚠ Too much foliage
Root Vegetables	✗	✓	⚠ Poor root growth

✂ Troubleshooting

- ☐ No color change → Expired strip or wrong dilution
- ☐ False high → Recently fertilized?
- ☐ Too salty → Use less salt next time

What's Next?

If nitrogen is LOW:

- ☐ Add compost, fish emulsion, or blood meal
- ☐ Plant legumes (beans, peas)

If nitrogen is HIGH:

- ☐ Stop fertilizing
- ☐ Add straw or sawdust mulch to rebalance

Retesting Plan

- ☐ Test once per growing season
- ☐ Ideal times: Early spring and mid-summer

THE END