

RhizeBio Roots to Shoots™ Sampling Protocol

Sugar Beet – Soil (Haney), Root (DNA), and Tissue (Nutrient) Analysis

Sampling Overview

Collect samples from treated and untreated areas. Each sampling event includes:

- Soil → Haney fertility analysis
- Roots → Microbiome (DNA) analysis
- Plant tissue → Nutrient analysis

Select plants from multiple locations across each zone. Use clean gloves and disinfected tools between plots. Place each sample type in its own labeled bag.

Sample Collection Instructions

Soil – Haney Fertility

Shake root balls over a clean bucket to collect root-associated soil.

Mix thoroughly and place **2 cups** of soil into a RhizeBio soil bag. Do not include roots or plant debris.

Roots – Microbiome (DNA)

See table below for root sampling by growth stage.

Collect feeder roots in later stages, discard bulky taproots.

Do not wash. Place roots with adhering soil into a RhizeBio root bag.

Potato Rhizosphere Sampling Guide		
Growth Stage	Root Sample	Plants per Sample
Emergence - Vegetative	Whole Root System	6 - 8
Rosette / Pre-bolting	Whole Root System	5 - 6
Bulking / Root Expansion	Feeder roots	4 - 5
Maturity / Late Growth	Feeder roots	3 - 4

Plant Tissue – Nutrient Analysis

Collect clean, undamaged tissue as shown below. Use paper bags only. Do not wash tissue. Allow airflow and refrigerate if not shipping same day.

Potato Tissue Sampling Guide		
Growth Stage	Plant Sample	Plants per Sample
Emergence - Vegetative	Top whole leaves	20 - 30
Rosette / Pre-bolting	Most recent fully expanded	15 - 20
Bulking / Root Expansion	Most recent fully expanded	10 - 15
Maturity / Late Growth	Upper canopy green leaves	5 - 10

Labeling & Submittal

Use permanent marker to label each bag with:

- Field Name
- Sample Type (Soil, Root, Plant)
- Growth Stage
- Collection Date

Complete the RhizeBio Submittal Form with:

Required: Field name, sample reference, crop type, crop cultivar, longitude latitude

Storage & Shipping

Time Before Shipping	Storage Recommendation
<3 days	Store at room temperature or refrigerate
3 - 5 days	Refrigerate at 0-6°C (32-48°F)
>5 days	Use frozen ice packs to ship cool

Do not freeze roots, soil, or plant tissue.

Do not wash roots or leaves.

Do not use plastic bags for tissue.

Ship Samples To:

RhizeBio, Inc.

235 Tuckasee Road, Suite A

Mount Holly, NC 28120

Contact:

Support@rhizebio.co

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