

## RhizeBio Roots to Shoots™ Sampling Protocol

Corn – 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.

#### 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.

Corn Rhizosphere Sampling Guide		
Growth Stage	Root Sample	Plants per Sample
VE - V4	Whole root system	6 - 8
V5 - V6	Whole root system	6
V7 - V9	Feeder roots	5-6
V10 - VT	Feeder roots	4 - 5
R1 - R2	Feeder roots	3 - 4
R3 - R6	Remaining feeder roots	3

Corn Tissue Sampling Guide		
Growth Stage	Root Sample	Plants per Sample
VE - V4	Entire above ground plant	20 - 30
V5 - V6	Top collar leaf	15 - 20
V7 - V9	Top collar leaf	10 - 15
V10 - VT	Top collar leaf	8 - 10
R1 - R2	Ear leaf	8 - 10
R3 - R6	Ear or upper canopy leaf	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 Tuckaseege Road, Suite A  
 Mount Holly, NC 28120

### Contact:

[Support@rhizebio.com](mailto:Support@rhizebio.com)  
 919-351-2038