



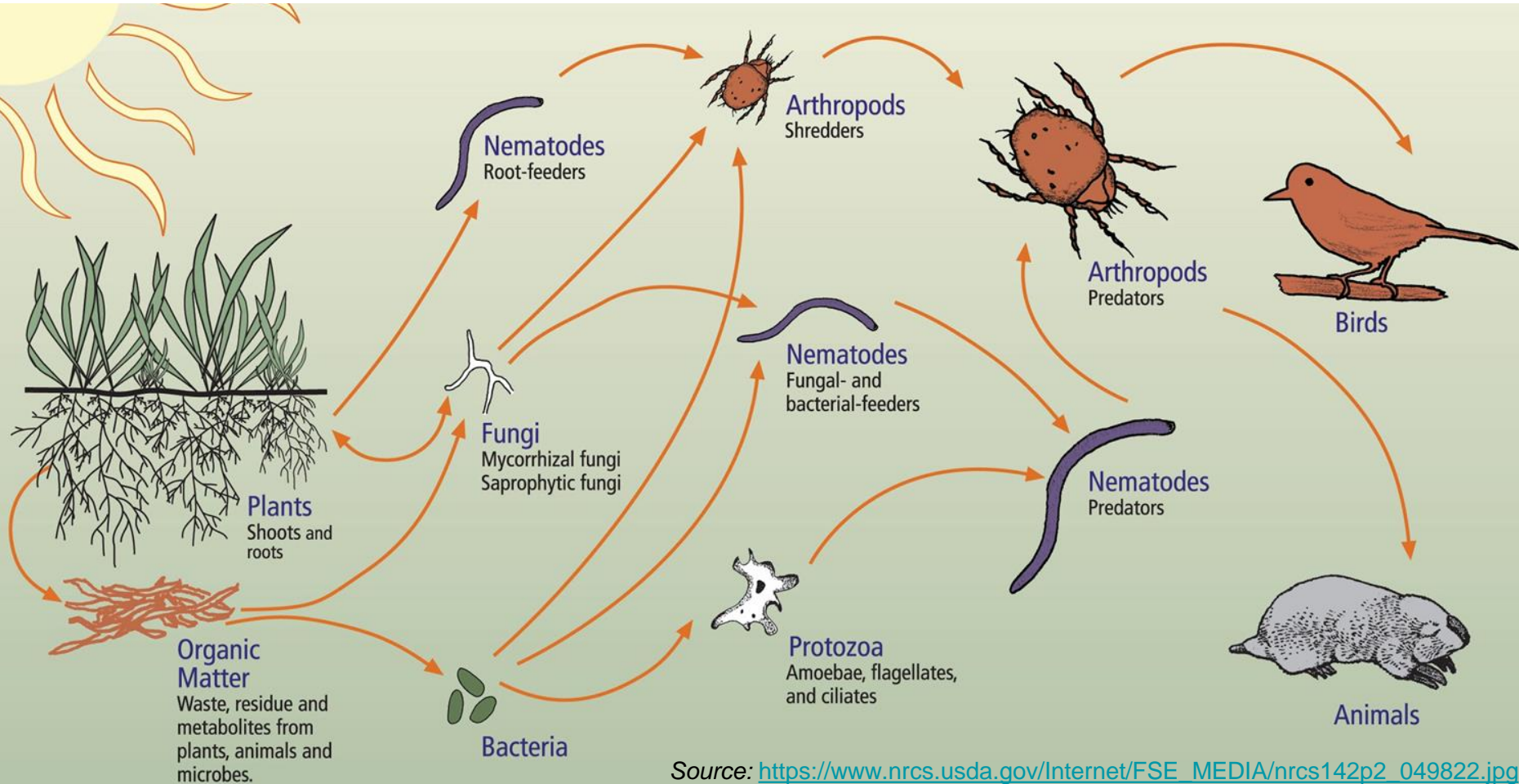
# Managing With Soil Genetics

**For Generations, We Have Been  
Looking For Symptoms Here**

**Now We Can Solve  
Problems Here**

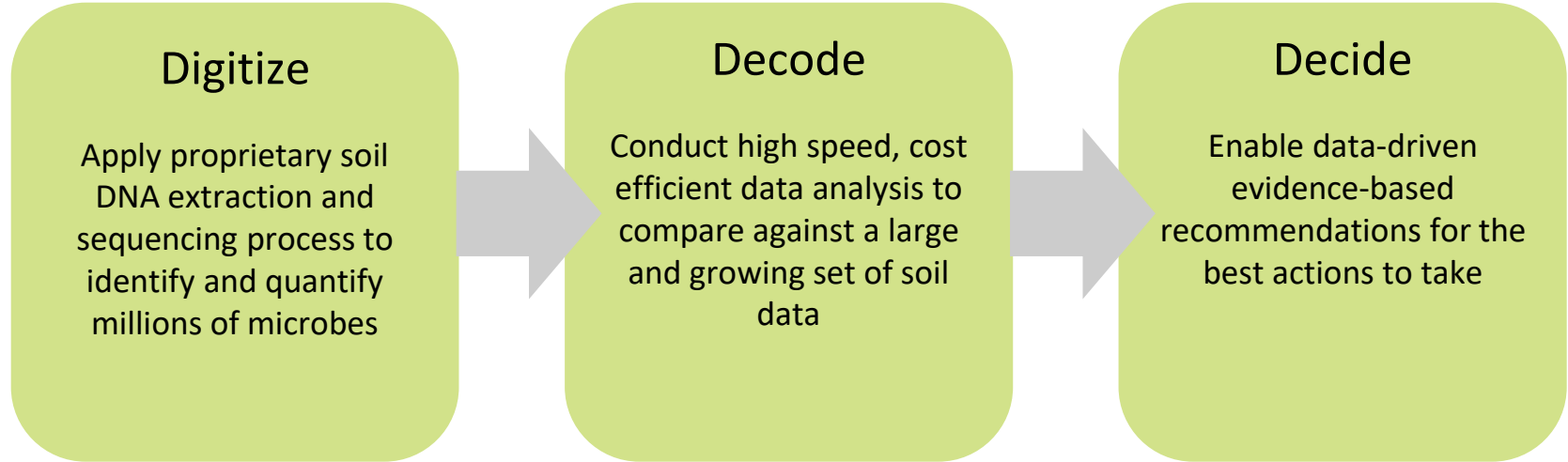


# The Soil Food Web

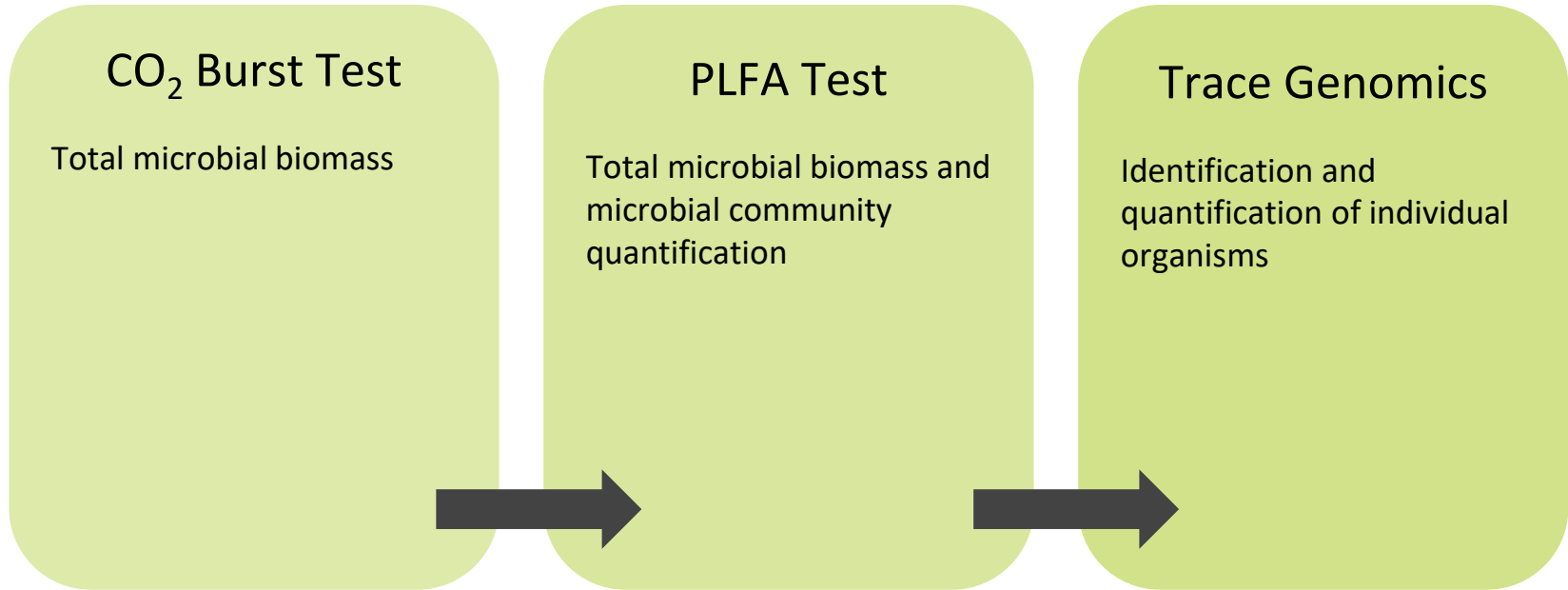


Source: [https://www.nrcs.usda.gov/Internet/FSE\\_MEDIA/nrcs142p2\\_049822.jpg](https://www.nrcs.usda.gov/Internet/FSE_MEDIA/nrcs142p2_049822.jpg)

# Scalable Microbiology



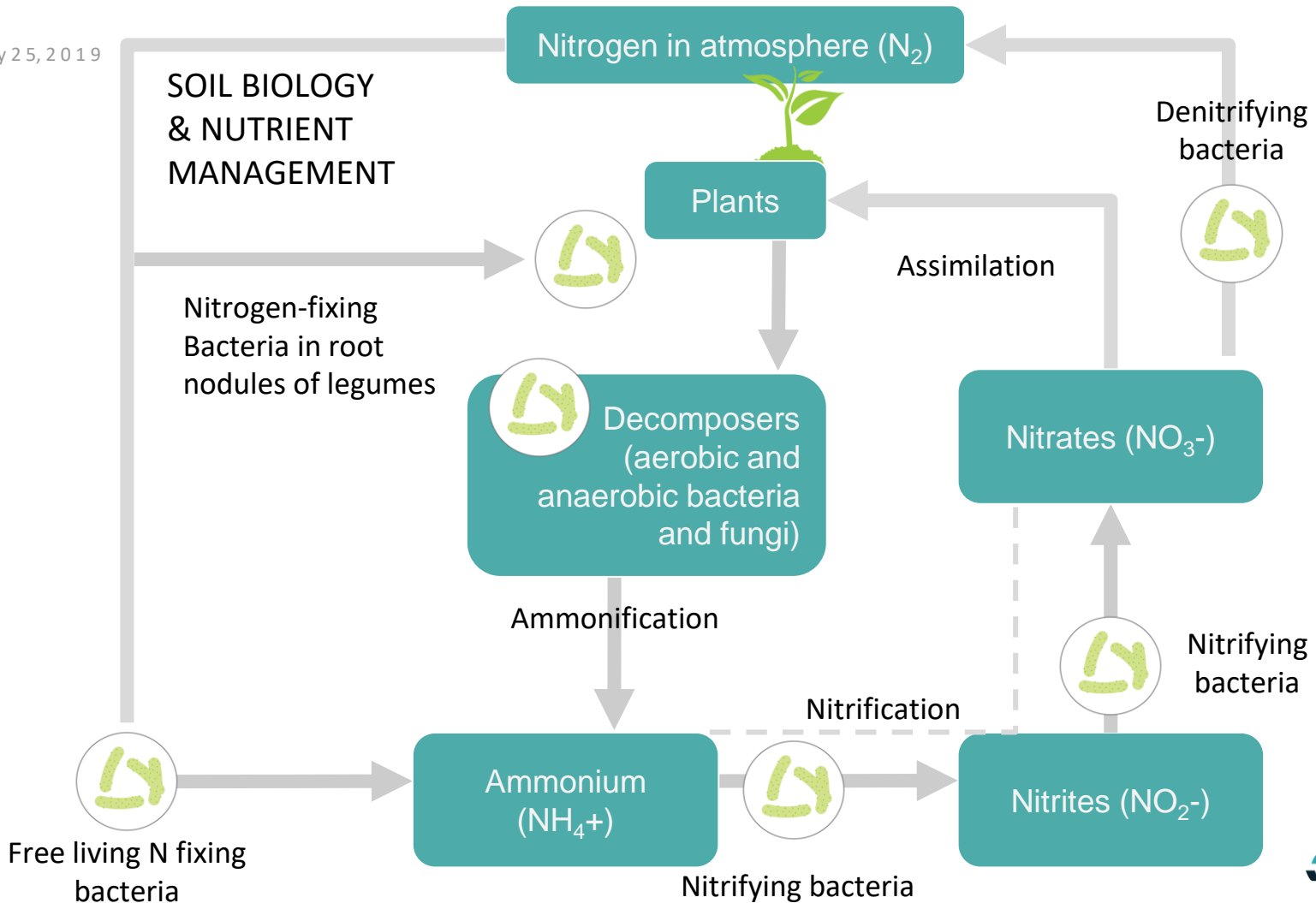
# Trace Genomics Offers Unparalleled Measurement Of Organisms In Each Sample

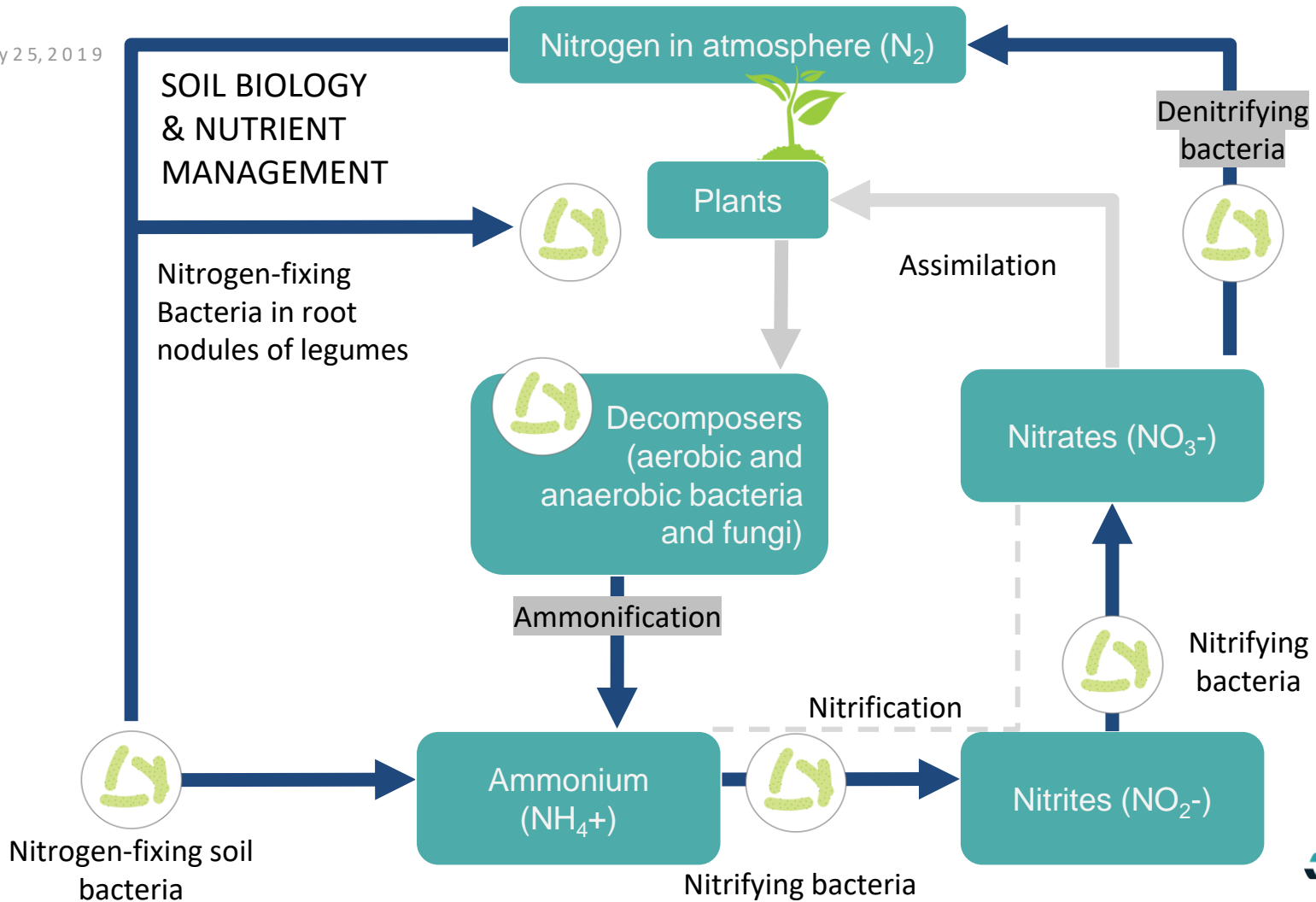


| July 25, 2019

# Soil Biology & Nutrient Management

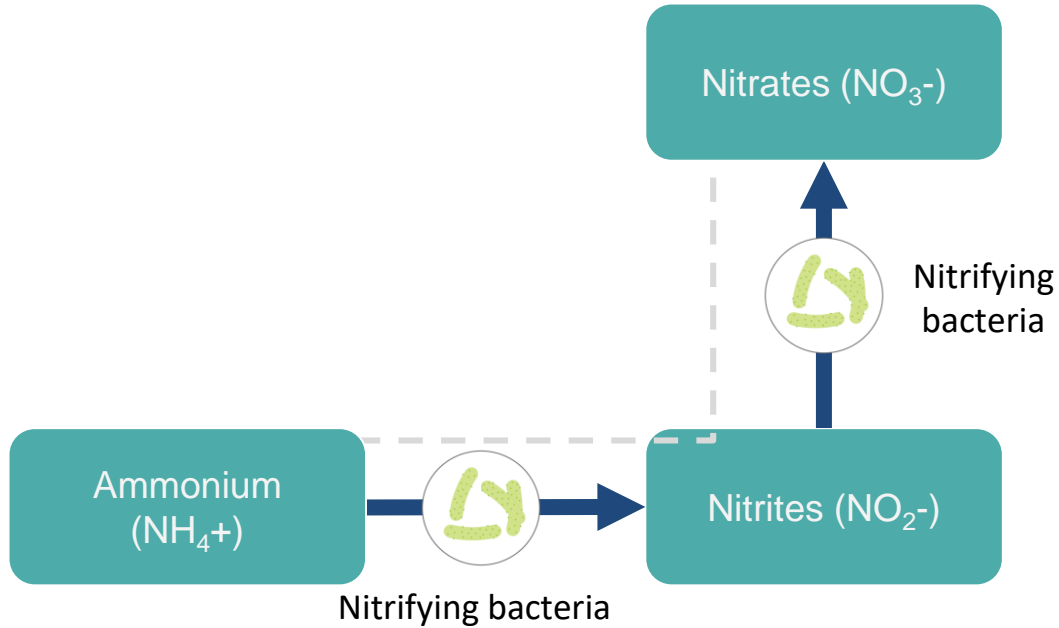
# SOIL BIOLOGY & NUTRIENT MANAGEMENT



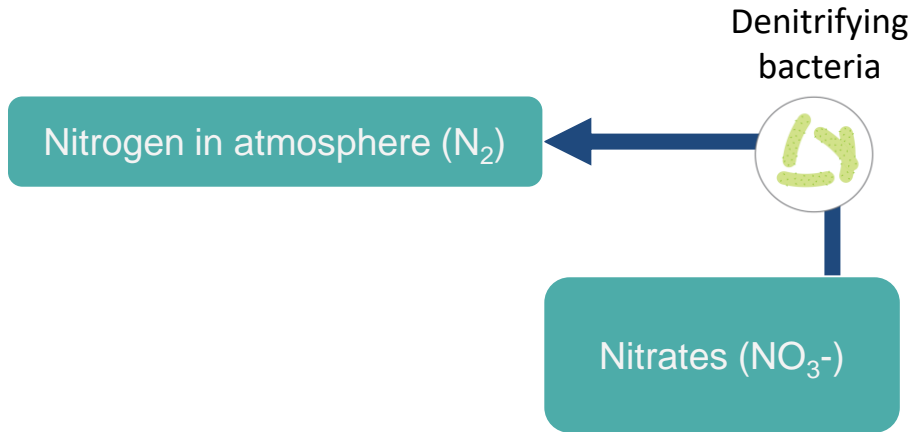




# Process Measured: Nitrification



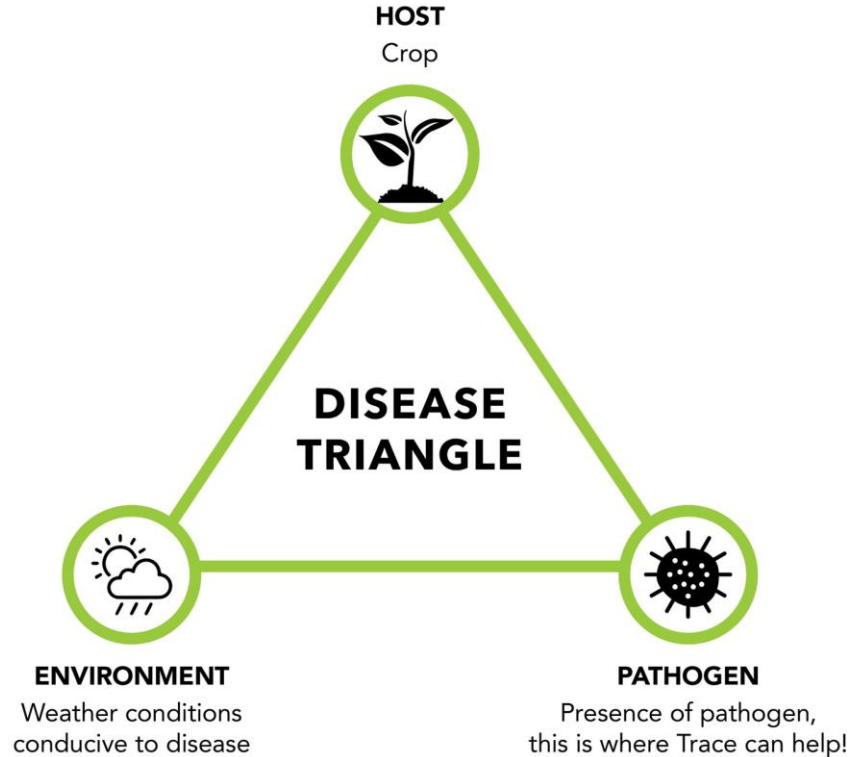
# Process Measured: Denitrification



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# Soil Biology & Disease Management

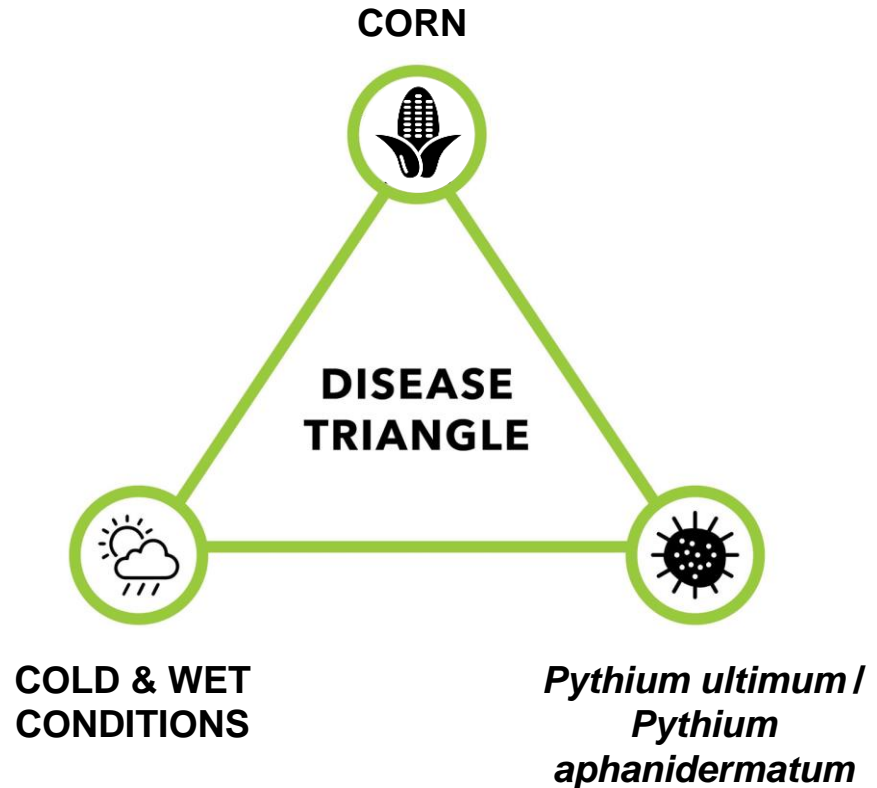
All three factors (host, environment, pathogen) need to come together to create the ideal conditions for infection. By identifying and measuring the pathogens in your soil, you can take a proactive approach before it affects your crop. You can also test for pathogens to diagnose symptomatic areas in your field so you can take the necessary action.



# Pythium in Corn

When you know the pathogen is present, steps you can take:

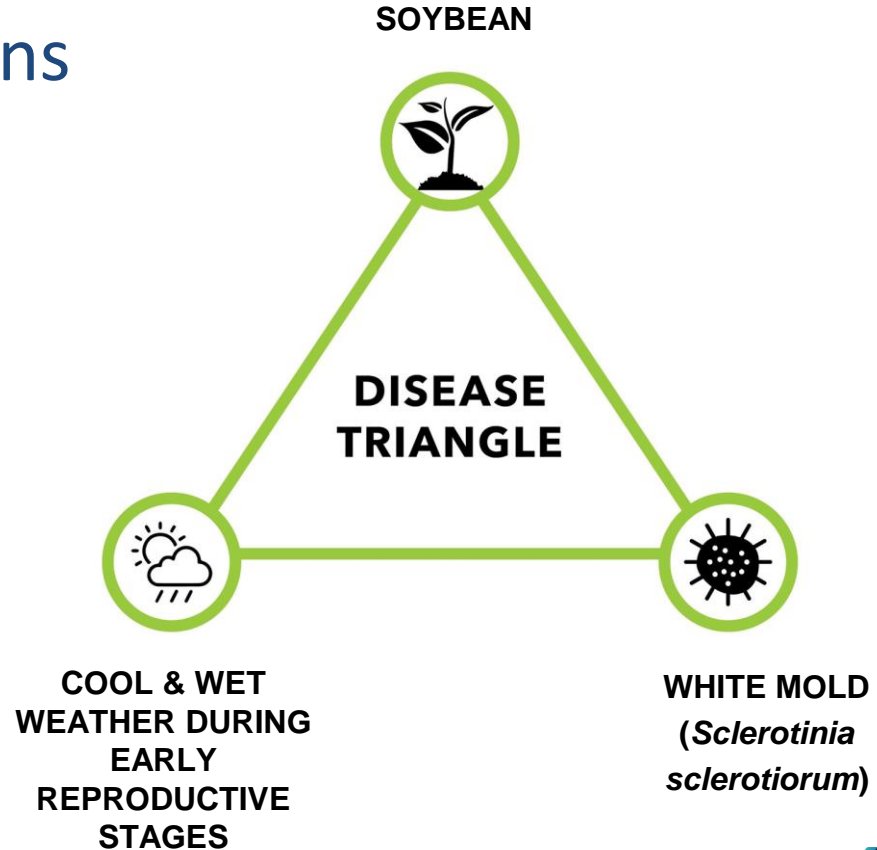
- Cultural Control
- Physical Control
- Chemical Control
- Biological Control



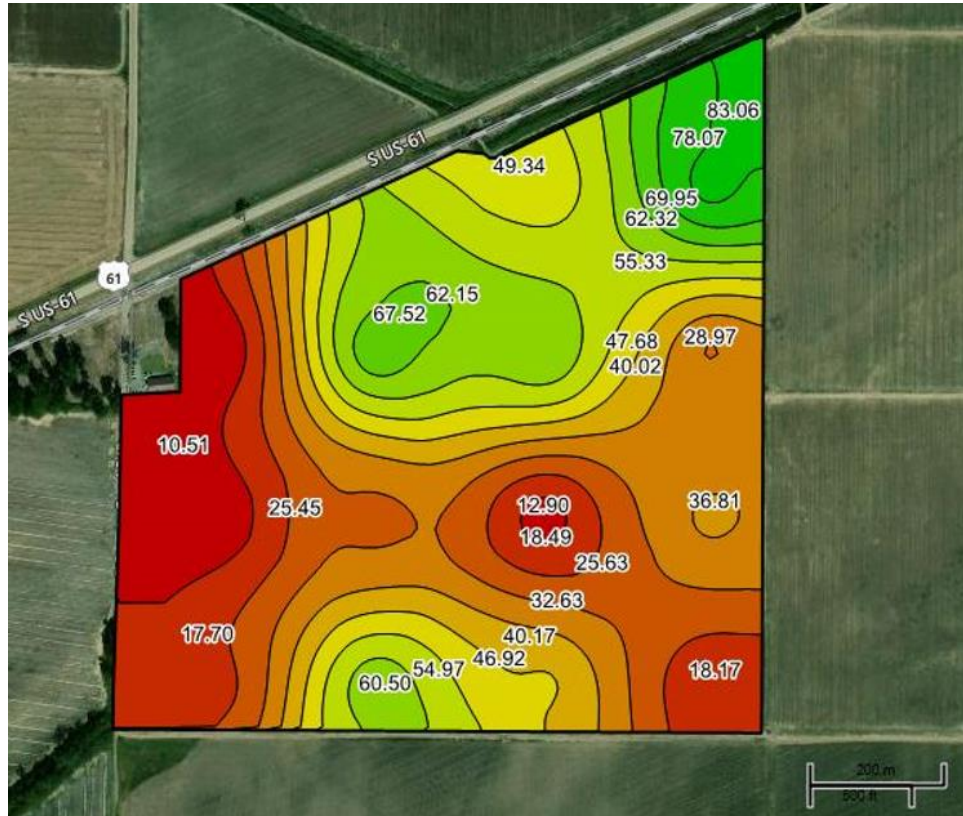
# White Mold In Soybeans

When you know the pathogen is present, steps you can take:

- Cultural Control
- Physical Control
- Chemical Control
- Biological Control



# Pythium spp.



# Soil Biology Informs Agronomic Decisions

## Seed Selection

Choosing the right variety/hybrid based on the disease resistance trait or varietal tolerance.

## Cover Crops

Gain insights into how practices like cover crops and no-till affect nutrient cycling and pathogens.

## Crop Rotation

Knowing whether you have an abundance of certain pathogens may influence which crop is planted.

## Fungicides

Is the inoculum present for a disease and should I apply a seed-applied or foliar fungicide.

## Fertilizers

Knowing more about the amount of nutrient that may become available during the growing season can help better plan fertilizer applications.





# SOIL AT WORK Sessions

Visit Our Website To Register!

- **August 5** in Arthur, North Dakota
- **August 9** in Dysart, Iowa
- **August 12** in DeKalb, Illinois
- **August 14** in Alexandria, Minnesota
- **August 15** in Woodbine, Iowa
- **August 16** in Newport, Arkansas
- **August 19** in Champaign, Illinois

# THANK YOU

For Early Adopters

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