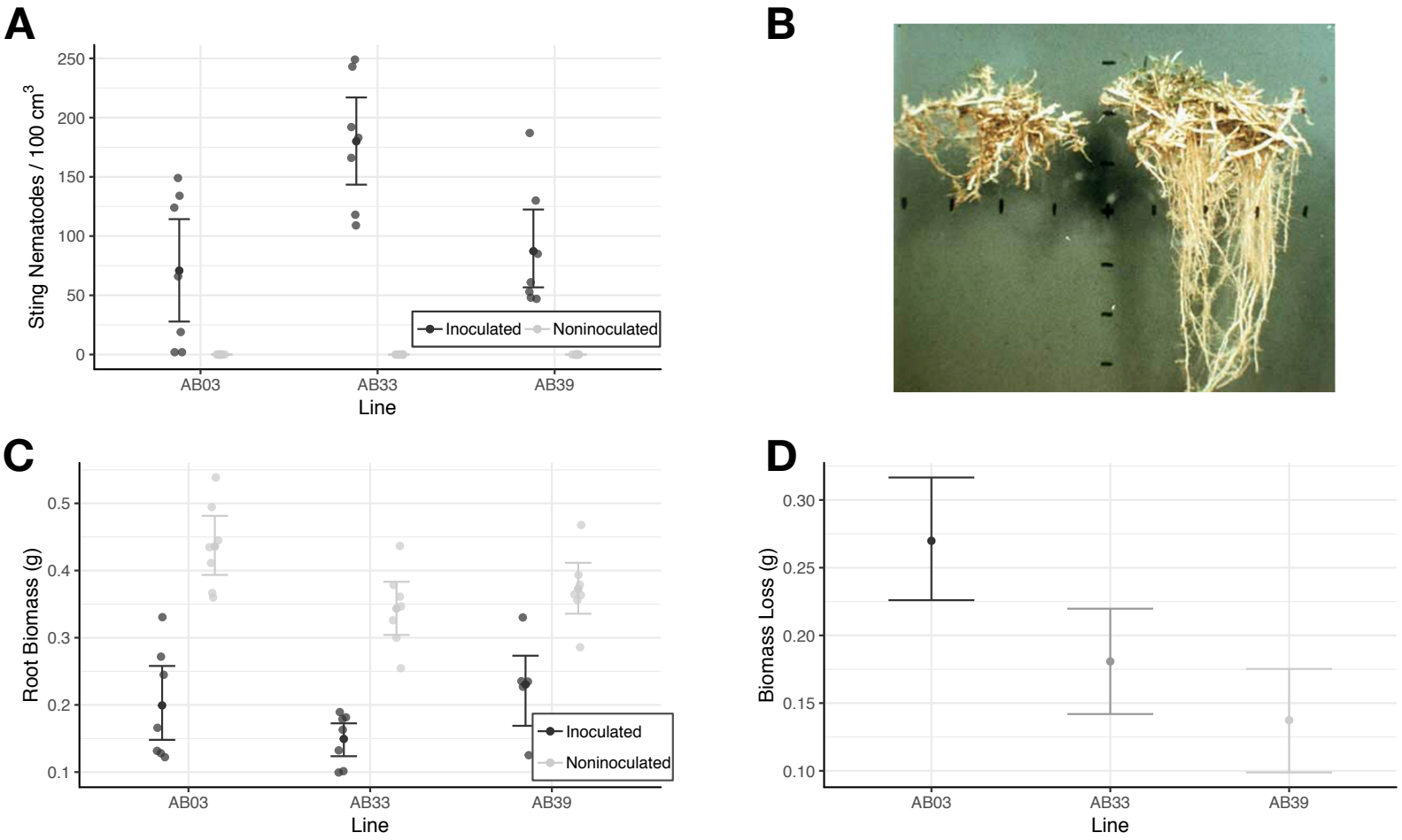
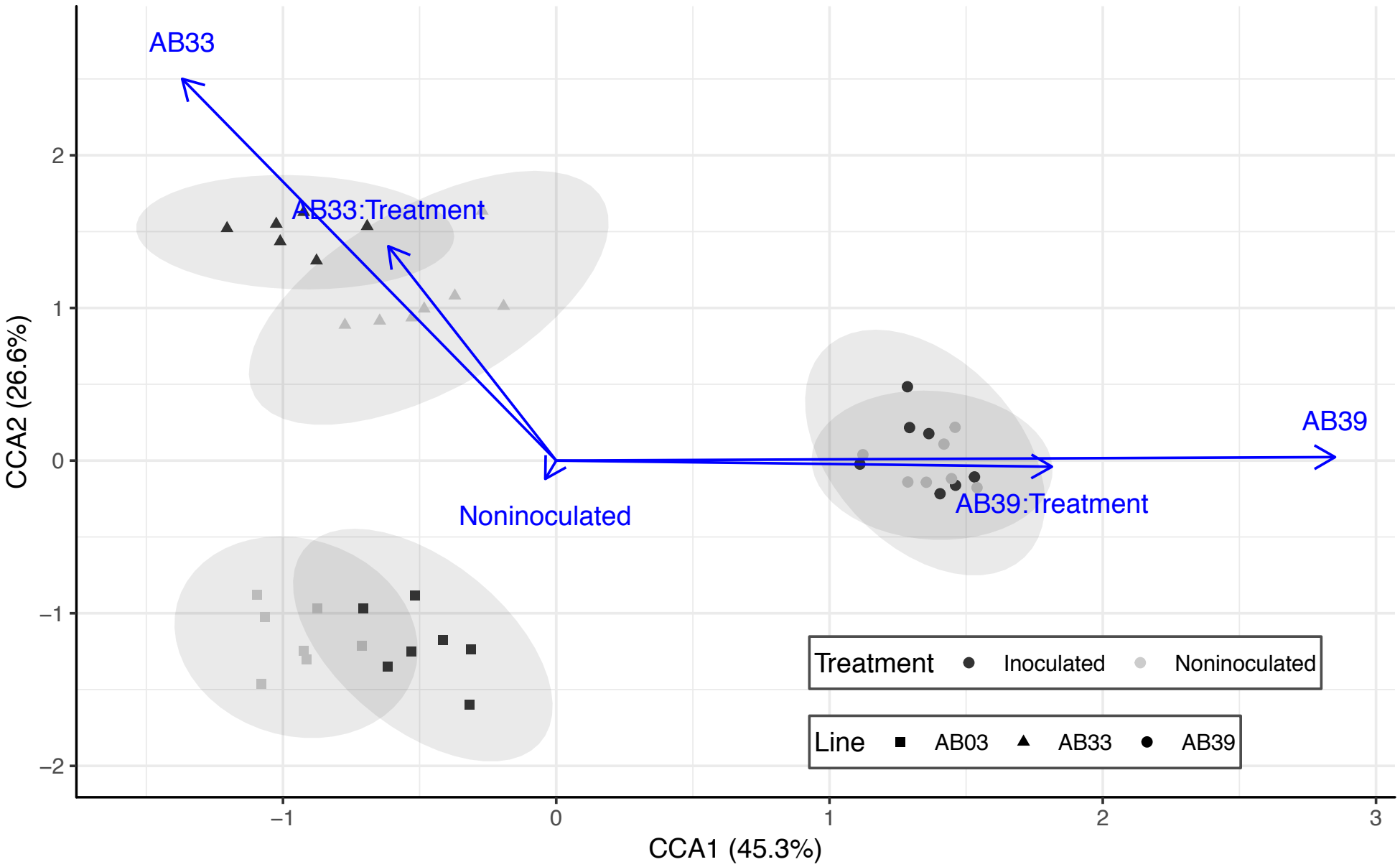
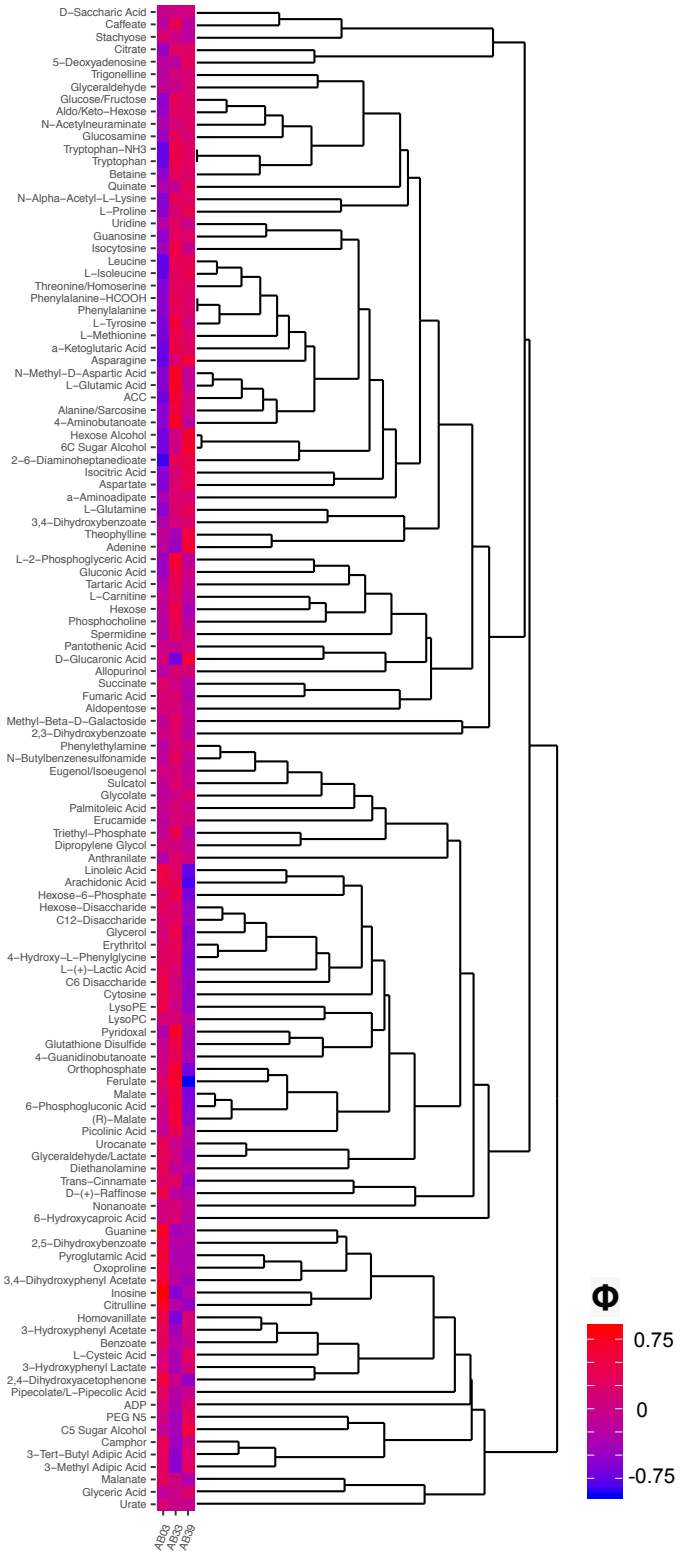
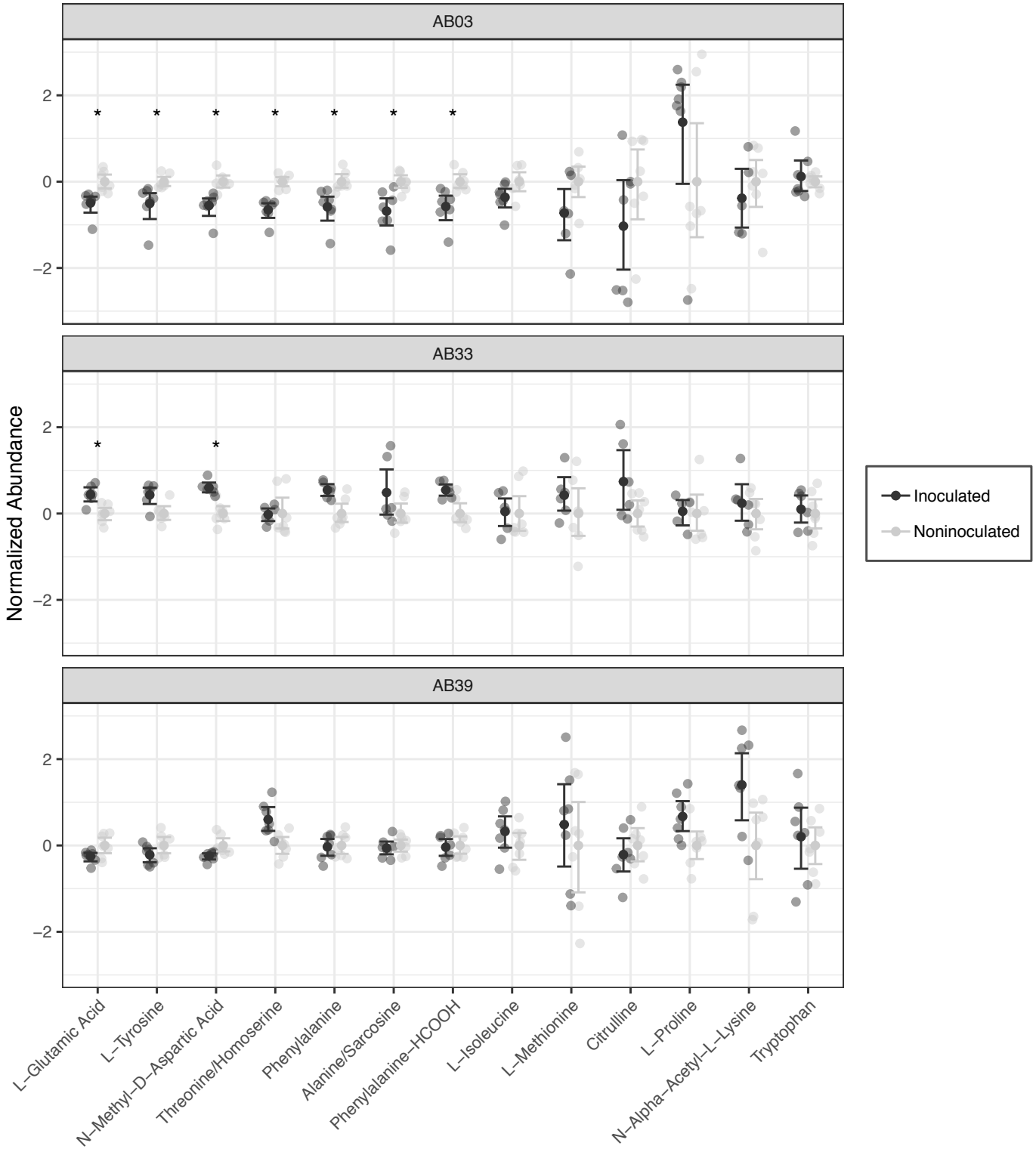
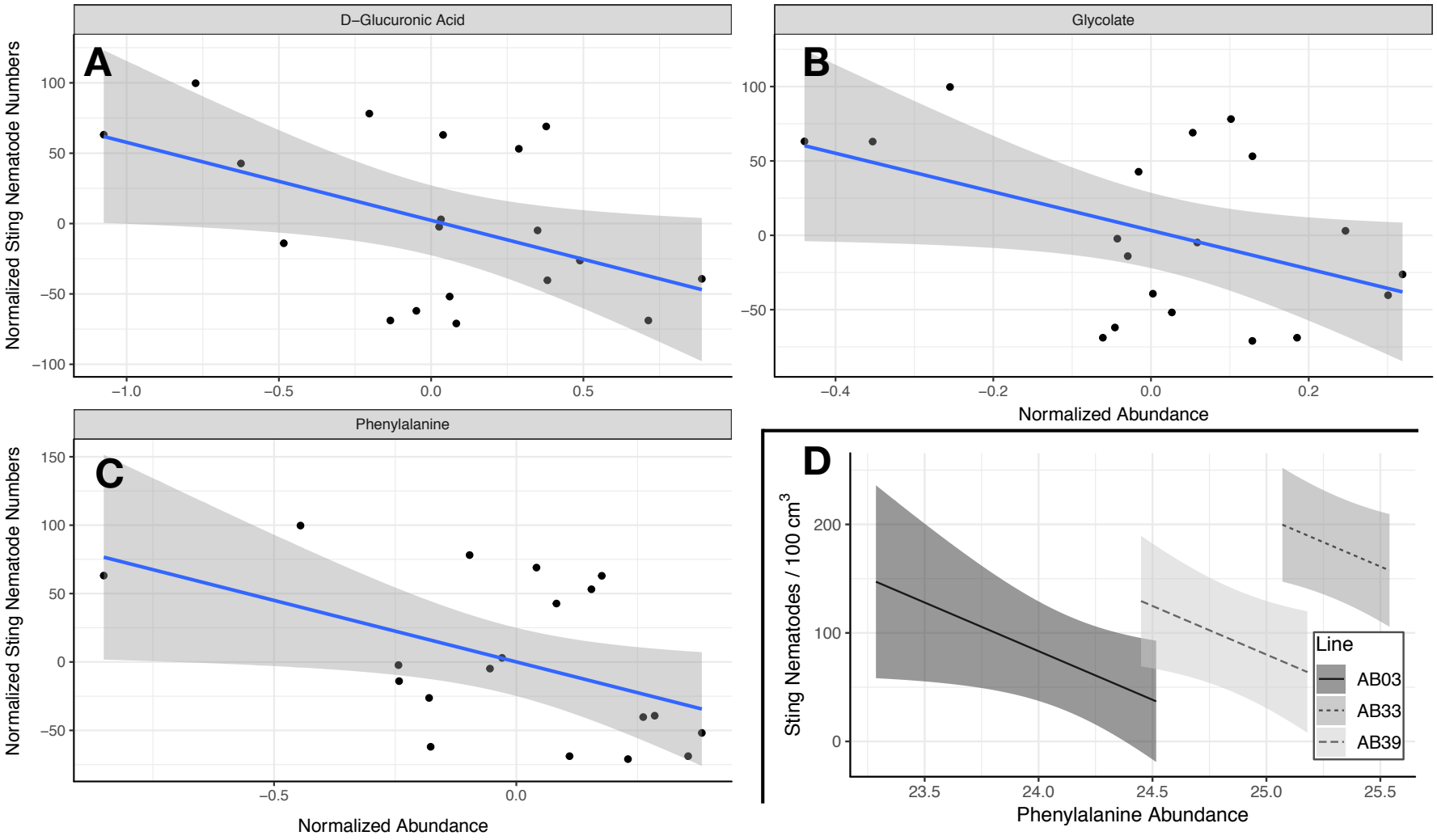
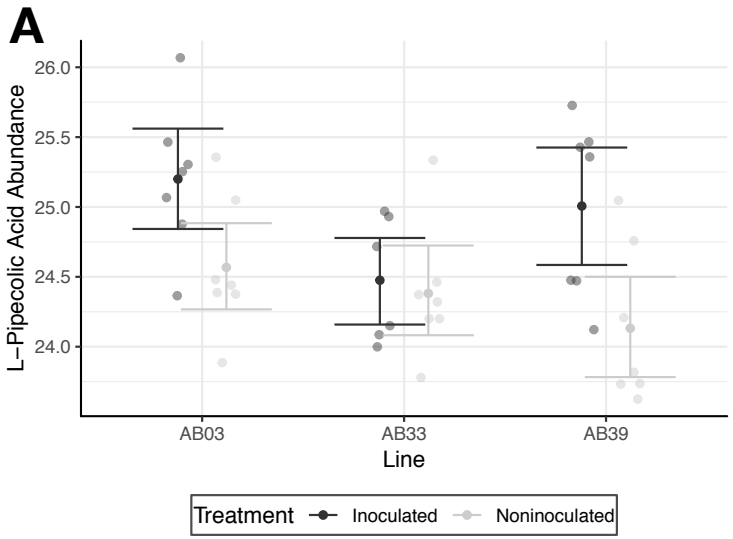

A
Sting Nematodes / 100 cm3
250
200
150
100
50
0
Inoculated
Noninoculated
AB03
AB33
AB39
Line
B
C
Root Biomass (g)
0.5
0.4
0.3
0.2
0.1
Inoculated
Noninoculated
AB03
AB33
AB39
Line
D
Biomass Loss (g)
0.30
0.25
0.20
0.15
0.10
AB03
AB33
AB39
Line

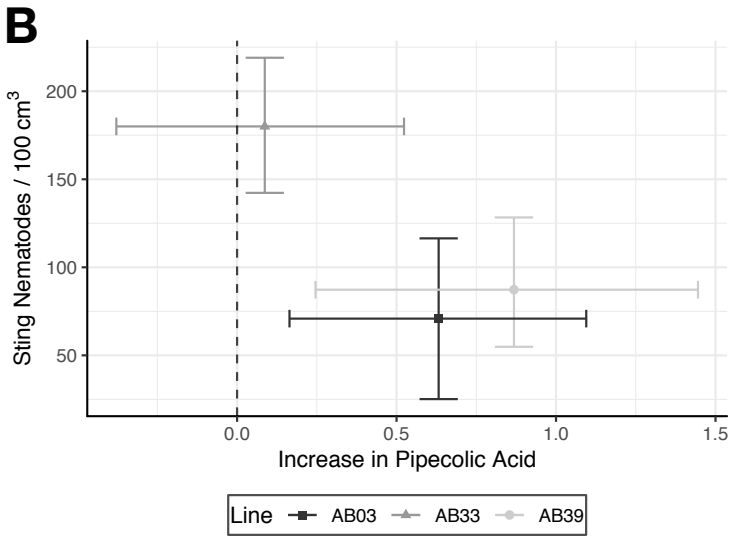

AB33
AB33:Treatment
Noninoculated
AB39
AB39:Treatment
Treatment
Inoculated
Noninoculated
Line
AB03
AB33
AB39
CCA2 (26.6%)
CCA1 (45.3%)
2
1
0
−1
−2
−1
0
1
2
3


D−Saccharic Acid
Caffeate
Stachyose
Citrate
5−Deoxyadenosine
Trigonelline
Glyceraldehyde
Glucose/Fructose
Aldo/Keto−Hexose
N−Acetylneuraminate
Glucosamine
Tryptophan−NH3
Tryptophan
Betaine
Quinate
N−Alpha−Acetyl−L−Lysine
L−Proline
Uridine
Guanosine
Isocytosine
Leucine
L−Isoleucine
Threonine/Homoserine
Phenylalanine−HCOOH
Phenylalanine
L−Tyrosine
L−Methionine
a−Ketoglutaric Acid
Asparagine
N−Methyl−D−Aspartic Acid
L−Glutamic Acid
ACC
Alanine/Sarcosine
4−Aminobutanoate
Hexose Alcohol
6C Sugar Alcohol
2−6−Diaminoheptanedioate
Isocitric Acid
Aspartate
a−Aminoadipate
L−Glutamine
3,4−Dihydroxybenzoate
Theophylline
Adenine
L−2−Phosphoglyceric Acid
Gluconic Acid
Tartaric Acid
L−Carnitine
Hexose
Phosphocholine
Spermidine
Pantothenic Acid
D−Glucaronic Acid
Allopurinol
Succinate
Fumaric Acid
Aldopentose
Methyl−Beta−D−Galactoside
2,3−Dihydroxybenzoate
Phenylethylamine
N−Butylbenzenesulfonamide
Eugenol/Isoeugenol
Sulcatol
Glycolate
Palmitoleic Acid
Erucamide
Triethyl−Phosphate
Dipropylene Glycol
Anthranilate
Linoleic Acid
Arachidonic Acid
Hexose−6−Phosphate
Hexose−Disaccharide
C12−Disaccharide
Glycerol
Erythritol
4−Hydroxy−L−Phenylglycine
L−(+)−Lactic Acid
C6 Disaccharide
Cytosine
LysoPE
LysoPC
Pyridoxal
Glutathione Disulfide
4−Guanidinobutanoate
Orthophosphate
Ferulate
Malate
6−Phosphogluconic Acid
(R)−Malate
Picolinic Acid
Urocanate
Glyceraldehyde/Lactate
Diethanolamine
Trans−Cinnamate
D−(+)−Raffinose
Nonanoate
6−Hydroxycaproic Acid
Guanine
2,5−Dihydroxybenzoate
Pyroglutamic Acid
Oxoproline
3,4−Dihydroxyphenyl Acetate
Inosine
Citrulline
Homovanillate
3−Hydroxyphenyl Acetate
Benzoate
L−Cysteic Acid
3−Hydroxyphenyl Lactate
2,4−Dihydroxyacetophenone
Pipecolate/L−Pipecolic Acid
ADP
PEG N5
C5 Sugar Alcohol
Camphor
3−Tert−Butyl Adipic Acid
3−Methyl Adipic Acid
Malanate
Glyceric Acid
Urate
AB03
AB05
AB08
AB09
Φ
0.75
0
-0.75


AB03
AB33
AB39
Normalized Abundance
2
0
−2
Inoculated
Noninoculated
L−Glutamic Acid
L−Tyrosine
N−Methyl−D−Aspartic Acid
Threonine/Homoserine
Phenylalanine
Alanine/Sarcosine
Phenylalanine−HCOOH
L−Isoleucine
L−Methionine
Citrulline
L−Proline
N−Alpha−Acetyl−L−Lysine
Tryptophan


D−Glucuronic Acid
A
Normalized Sting Nematode Numbers
100
50
0
−50
−100
−1.0
−0.5
0.0
0.5
Glycolate
B
100
50
0
−50
−0.4
−0.2
0.0
0.2
Normalized Abundance
Phenylalanine
C
Normalized Sting Nematode Numbers
150
100
50
0
−50
−0.5
0.0
Normalized Abundance
D
Sting Nematodes / 100 cm3
200
100
0
23.5
24.0
24.5
25.0
25.5
Phenylalanine Abundance
Line
AB03
AB33
AB39


A
L–Pipecolic Acid Abundance
26.0
25.5
25.0
24.5
24.0
AB03
AB33
AB39
Line
Treatment
Inoculated
Noninoculated


B
Sting Nematodes / 100 cm3
200
150
100
50
0.0
0.5
1.0
1.5
Increase in Pipecolic Acid
Line
AB03
AB33
AB39