Appendix D16 - A

	Dependent Variable:
	Abundance
	pH
Constant	3.3239 t = 101.4124 p = 0.0000***
D_gluconic	-0.1651 t = -9.3979 p = 0.0000***
Observations	32
R^2	0.7464
Adjusted R^2	0.7380
Residual Std. Error (df = 25)	0.0937 (df = 30)
F Statistic (df = 6; 25)	**88.3196*** (df = 1; 30)**

Note: *p<0.1; **p<0.05; ***p<0.01

Model:

lmer_k_pHvsGA <- lm(pH ~ D_gluconic1, data = lmer_model_Data)

Appendix D16 - B

	Dependent Variable:
	Abundance
	Saccharomyces
Constant	0.65 t = 0.67 *p* = 0.5
pH	-0.069 t = -0.218 *p* = 0.83
Glucose	-0.036 t = -2.14 *p* = 0.04**
Sucrose	-0.0104 t = -1.24 *p* = 0.227
Acetic_acid	-0.0845 t = -2.0192 *p* = 0.0544*
D_gluconic	0.0887 t = 1.2209 *p* = 0.2336
Succinic acid	1.7153 t = 1.1801 *p* = 0.2491
Observations	32
R^2	0.40
Adjusted R^2	0.25
Residual Std. Error (df = 25)	0.12
F Statistic (df = 6; 25)	**2.7215****

Note: *p<0.1; **p<0.05; ***p<0.01

Model:

lmer_sacc <- lm(Abundance (*Saccharomyces*) ~ pH + glucose1 + sucrose1 + Acetic_acid1 + D_gluconic1 + Succinic_acid1, data = Mixed_Data_sac)

Appendix D16 - C

	Dependent Variable:
	Abundance
	Gluconobacter
Constant	-0.04 t = -0.44 *p* = 0.68
Sucrose	0.01 t = 3.61 *p* = 0.01***
Glucose	-0.10 t = -3.17 *p* = 0.02**
Fructose	0.14 t = 3.62 *p* = 0.01***
Succinic_acid	-1.57 t = -2.98 *p* = 0.02**
Acetic_acid	0.21 t = 1.84 *p* = 0.11
Observations	14
R^2	0.68
Adjusted R^2	0.48
Residual Std. Error (df = 8)	0.03
F Statistic (df = 5; 8)	**3.41***

Note: Overall model showed no statistical significance (p = 0.14)

***p<0.1; **p<0.05; ***p<0.01**

Model:

```
gluco_lm <- lm(Abundance ~ sucrose1 + glucose1 + Fructose1 + Succinic_acid1 + Acetic_acid1, data = Gluco_Data)
```

Appendix D16 - D

	Dependent Variable:
	Abundance
	Saccharomyces
Constant	0.84 t = 1.61 p = 0.15
Sucrose	0.002 t = 0.13 p = 0.90
Fructose1	0.12 t = 0.47 p = 0.65
Glucose1	-0.14 t = -0.54 p = 0.61
D_gluconic acid	1.77 t = 1.58 p = 0.16
Succinic_acid	-3.44 t = -1.11 p = 0.30
Observations	14
R^2	0.52
Adjusted R^2	0.21
Residual Std. Error	0.18 (df = 8)
F Statistic	1.71 (df = 5; 8)

Note: Overall model showed no statistical significance (p = 0.44) *p<0.1; **p<0.05; ***p<0.01

Model:

sacc_lm <- lm(Abundance ~ sucrose1+Fructose1+glucose1+D_gluconic1+ Succinic_acid1, data = saccharo_Data)