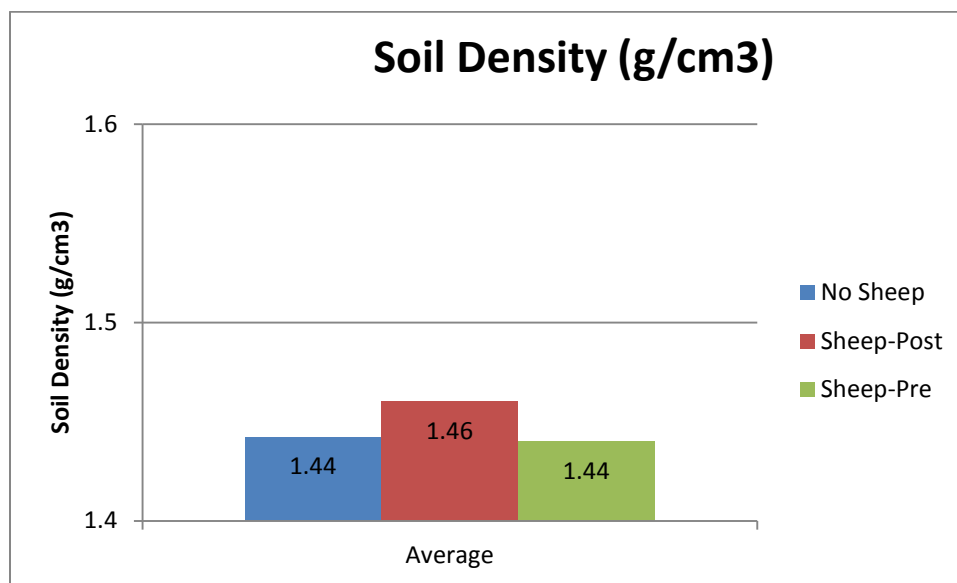


Fetzer Bonterra Sheep Trial 2015 Stats and Graphs

Soil Measurements:

Bulk Density was measured before and after the sheep were allowed to graze the cover crops. We also took measurements in our no-sheep grazing areas. We then calculated Soil Porosity based upon our measurements and ran statistical analysis using Statsgraphics Centurion. Bulk Density is the measurement of dry weight of soil per unit of volume, expressed in grams/cm³. Soil samples were also extracted pre and post sheep to determine soil composition and organic matter. These samples were shipped to A & L Western Agricultural Laboratories for testing, see below for some select readings.



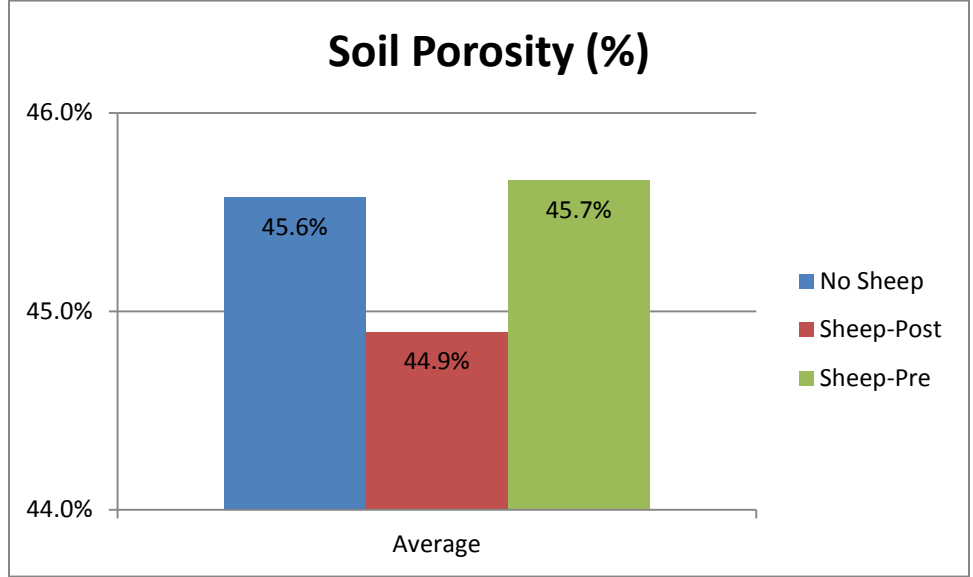
Multiple Range Tests for Soil Density (g/cm³) by Treatment

Method: 95.0 percent Duncan

Treatment	Count	Mean	Homogeneous Groups	
Sheep-Pre	16	1.44001	X	a
No Sheep	16	1.44231	X	a
Sheep-Post	16	1.46026	X	a

Contrast	Sig.	Difference
No Sheep - Sheep-Post		-0.01795
No Sheep - Sheep-Pre		0.002302
Sheep-Post - Sheep-Pre		0.020256

* denotes a statistically significant difference.



Multiple Range Tests for Soil Porosity (%) by Treatment

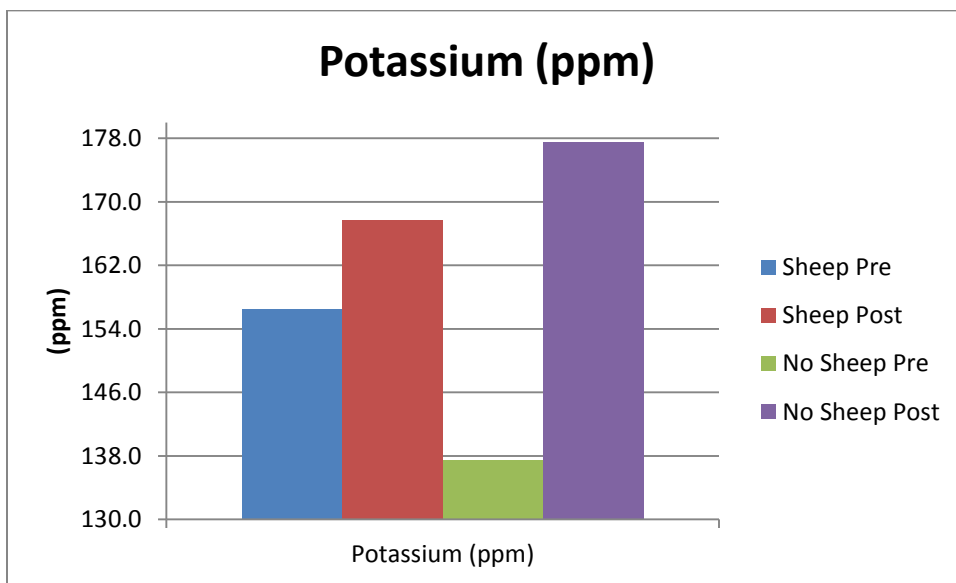
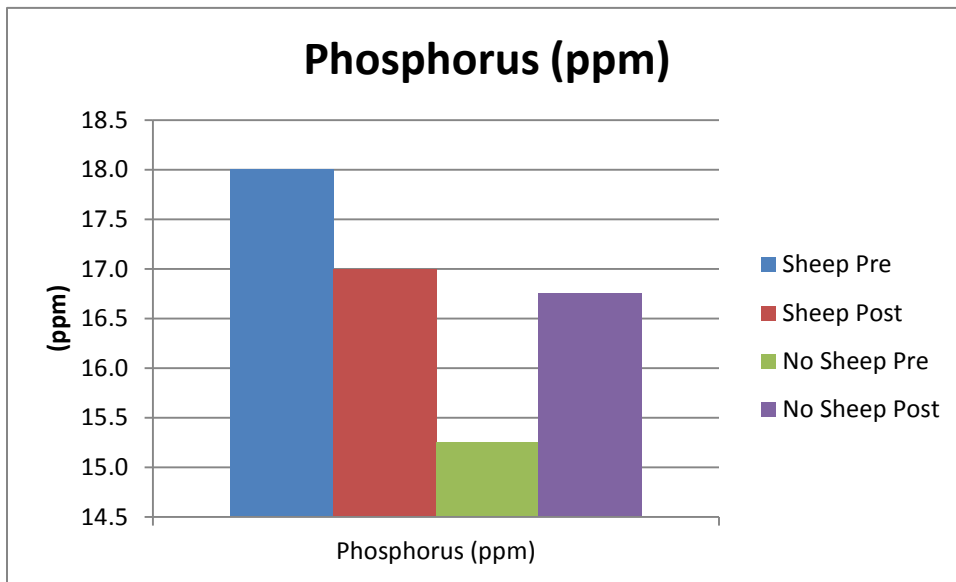
Method: 95.0 percent Duncan

Treatment	Count	Mean	Homogeneous Groups	
Sheep-Post	16	0.448958	X	a
No Sheep	16	0.455733	X	a
Sheep-Pre	16	0.456602	X	a

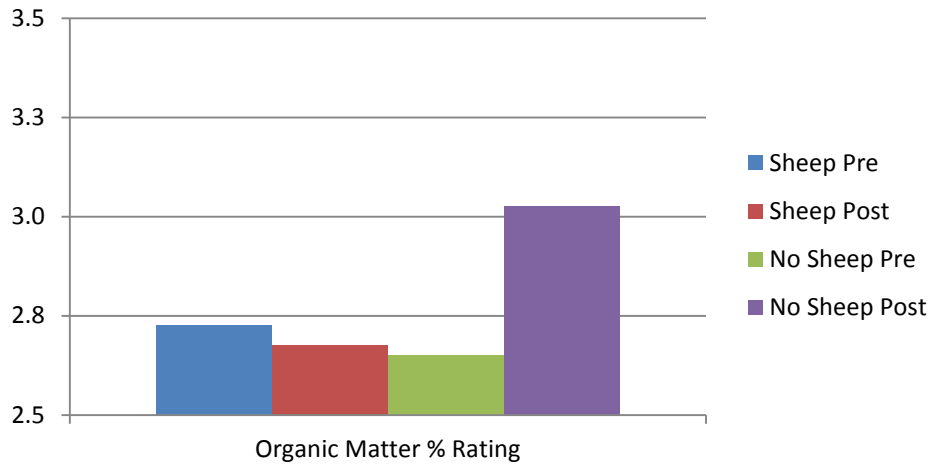
Contrast	Sig.	Difference
No Sheep - Sheep-Post		0.006775
No Sheep - Sheep-Pre		-0.00087
Sheep-Post - Sheep-Pre		-0.00764

* denotes a statistically significant difference.

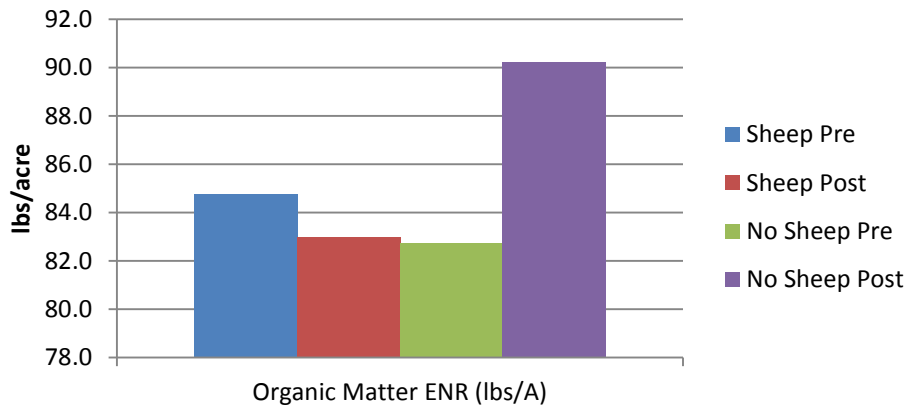
Soil Composition



Organic Matter % Rating

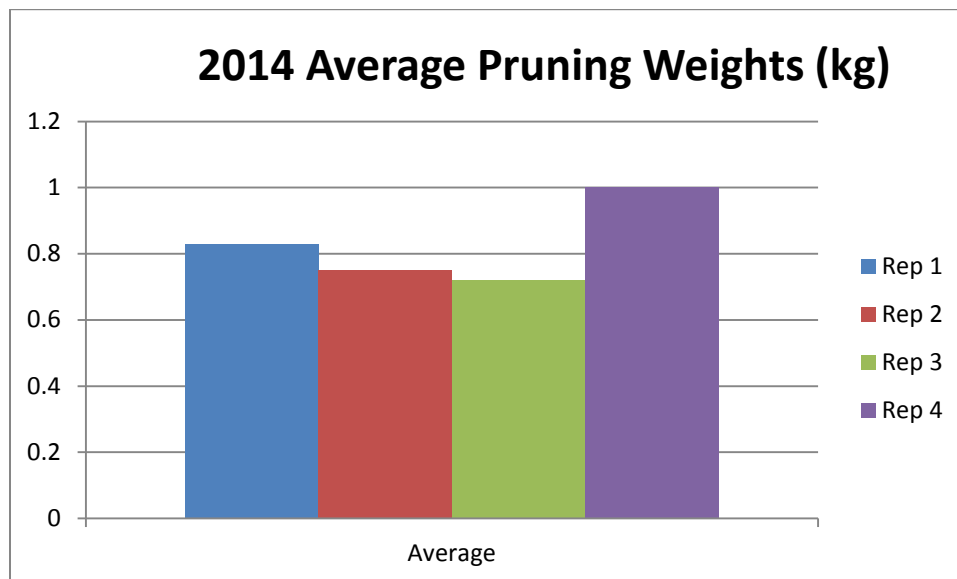


Organic Matter Estimated Nitrogen Release, ENR (lbs/A)



Harvest and Chemistry Data

We had 80 vines total in our trial to gather harvest and chemistry data from. We took 100 berries from each plot in the trial to determine Brix, pH, Titratable Acidity, and Average Berry Weight. During field harvest we counted the number of clusters per vine and recorded the weight (kg) per vine to get a comparison for each plot. We ran our statistical analysis based on all 4 reps and noted a statistical difference in harvest yields. There was no statistical difference as expected in our lab chemistry. We took a look back at 2014 pruning weights (below) and noted a difference in PW weights between our plots, with rep 4 being significantly different than the other reps. 2015 pruning weights (below) also showed a difference between reps. This could attest to the difference in yields at harvest time as well as the yield to pruning weight ratio.



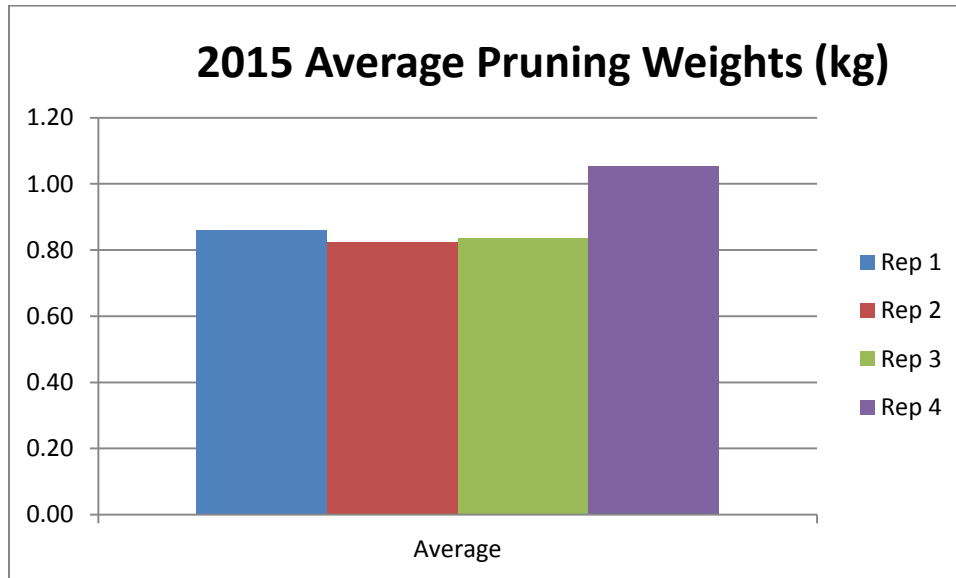
2014 Multiple Range Tests for Pruning Weight (kg) by Replication

Method: 95.0 percent Duncan

Replication	Count	Mean	Homogeneous Groups
3	20	0.72	X a
2	20	0.75	X a
1	20	0.83	X a
4	20	1	X b

Contrast	Sig.	Difference
1-2		0.08
1-3		0.11
1-4	*	-0.17
2-3		0.03
2-4	*	-0.25
3-4	*	-0.28

* denotes a statistically significant difference.



2015 Multiple Range Tests for Pruning Weight (kg) by Replication

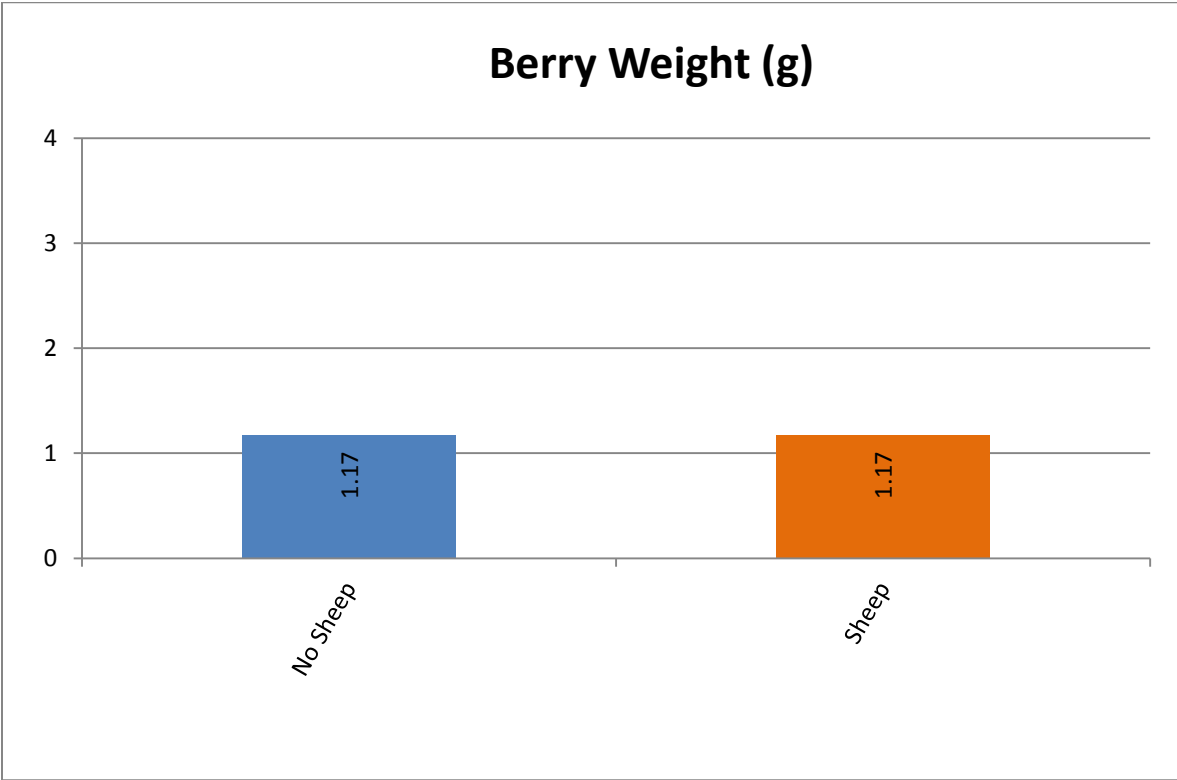
Method: 95.0 percent Duncan

Replication	Count	Mean	Homogeneous Groups
2	20	0.8235	X a
3	20	0.836	X a
1	20	0.86	X a
4	20	1.055	X b

Contrast	Sig.	Difference
1-2		0.0365
1-3		0.024
1-4	*	-0.195
2-3		-0.0125
2-4	*	-0.2315
3-4	*	-0.219

* denotes a statistically significant difference.

Chemistry Charts



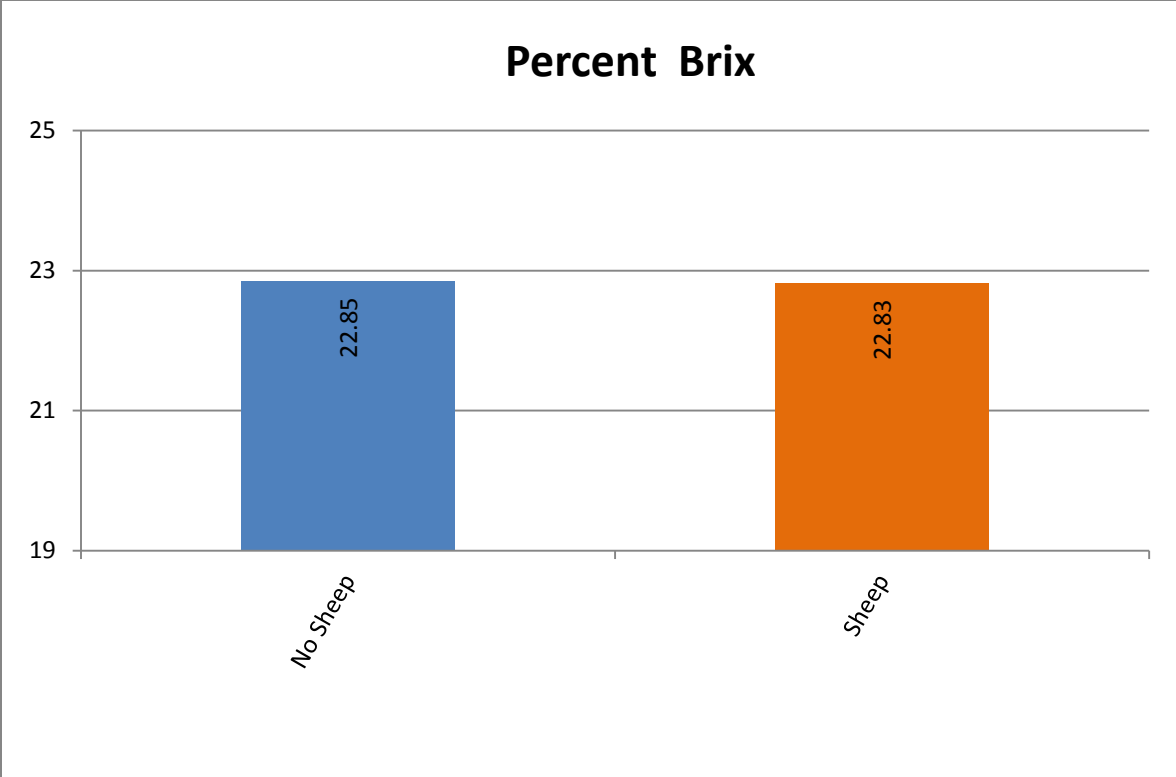
Multiple Range Tests for Berry Weight (g) by Treatment

Method: 95.0 percent Duncan

Treatment	Count	Mean	Homogeneous Groups
No Sheep	4	1.17	X a
Sheep	4	1.17	X a

Contrast	Sig.	Difference
No Sheep - Sheep		0

* denotes a statistically significant difference.



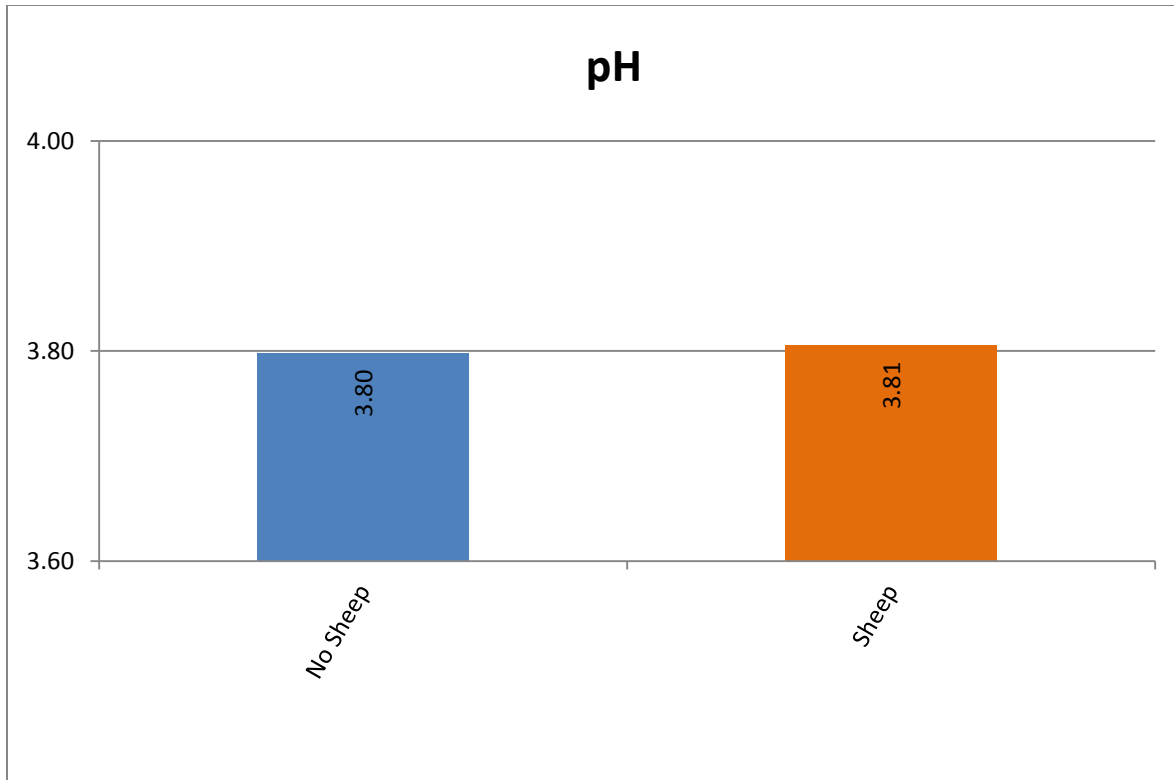
Multiple Range Tests for Percent Brix by Treatment

Method: 95.0 percent Duncan

Treatment	Count	Mean	Homogeneous Groups	
Sheep	4	22.825	X	a
No Sheep	4	22.85	X	a

Contrast	Sig.	Difference
No Sheep - Sheep		0.025

* denotes a statistically significant difference.



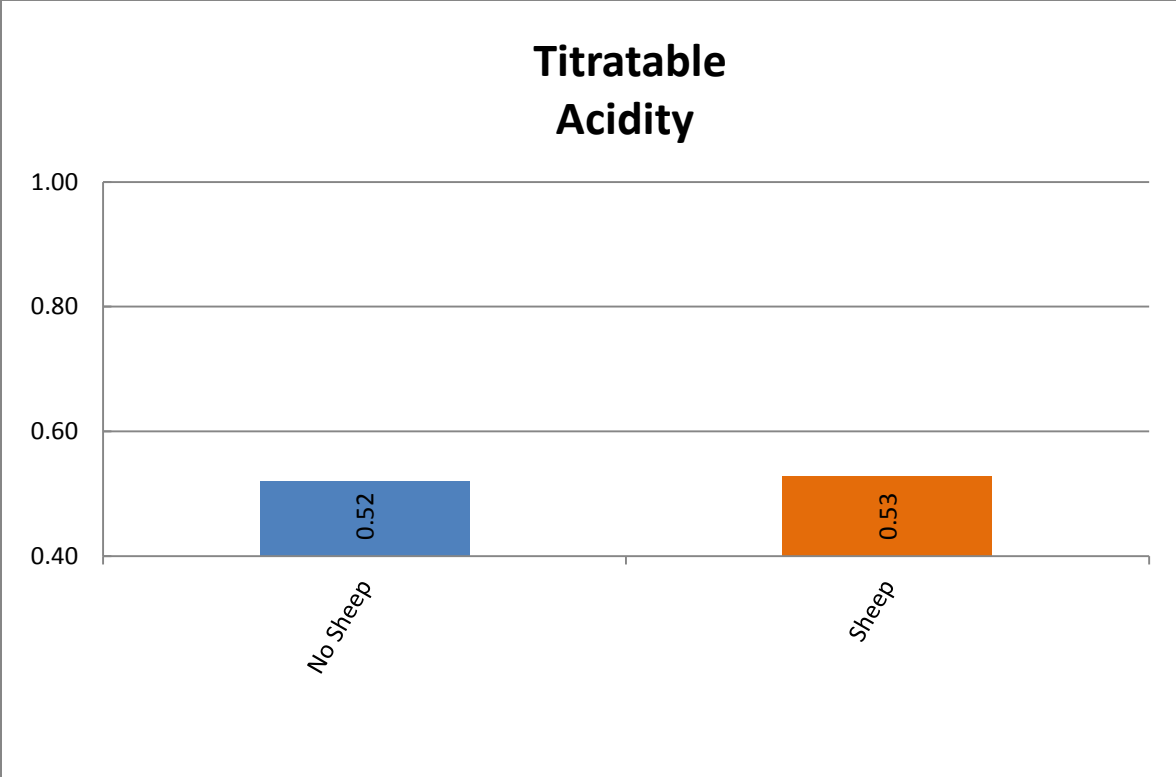
Multiple Range Tests for pH by Treatment

Method: 95.0 percent Duncan

Treatment	Count	Mean	Homogeneous Groups
No Sheep	4	3.7975	X a
Sheep	4	3.805	X a

Contrast	Sig.	Difference
No Sheep - Sheep		-0.0075

* denotes a statistically significant difference.



Multiple Range Tests for Total Acidity by Treatment

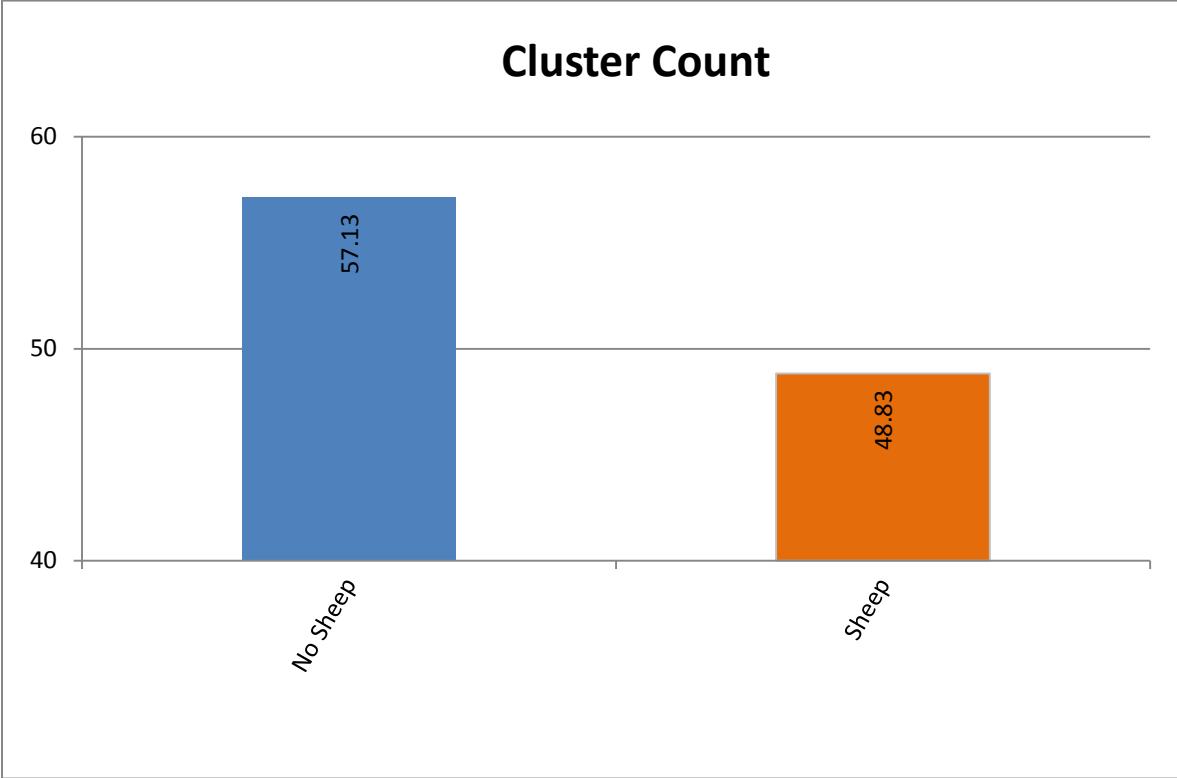
Method: 95.0 percent Duncan

Treatment	Count	Mean	Homogeneous Groups
No Sheep	4	0.52	X a
Sheep	4	0.5275	X a

Contrast	Sig.	Difference
No Sheep - Sheep		-0.0075

* denotes a statistically significant difference.

Harvest Charts



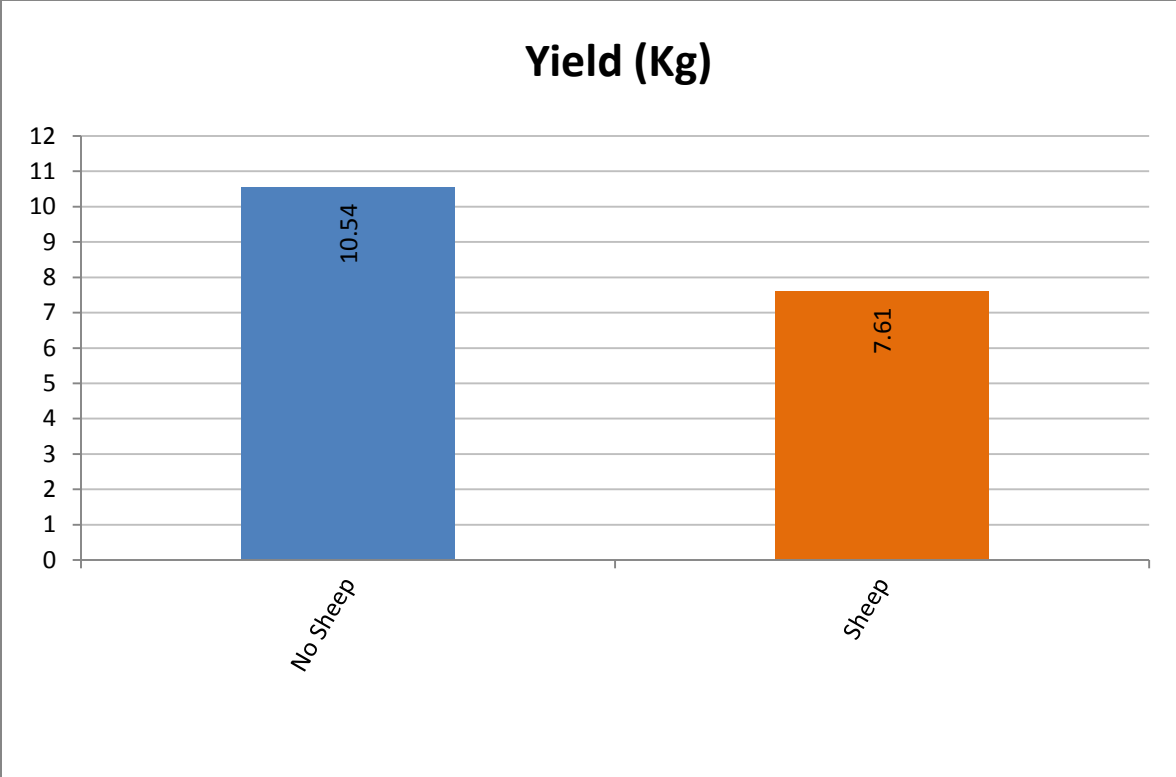
Multiple Range Tests for Cluster Count by Treatment

Method: 95.0 percent Duncan

Treatment	Count	Mean	Homogeneous Groups	
Sheep	40	48.825	X	a
No Sheep	40	57.125	X	b

Contrast	Sig.	Difference
No Sheep - Sheep	*	8.3

* denotes a statistically significant difference.



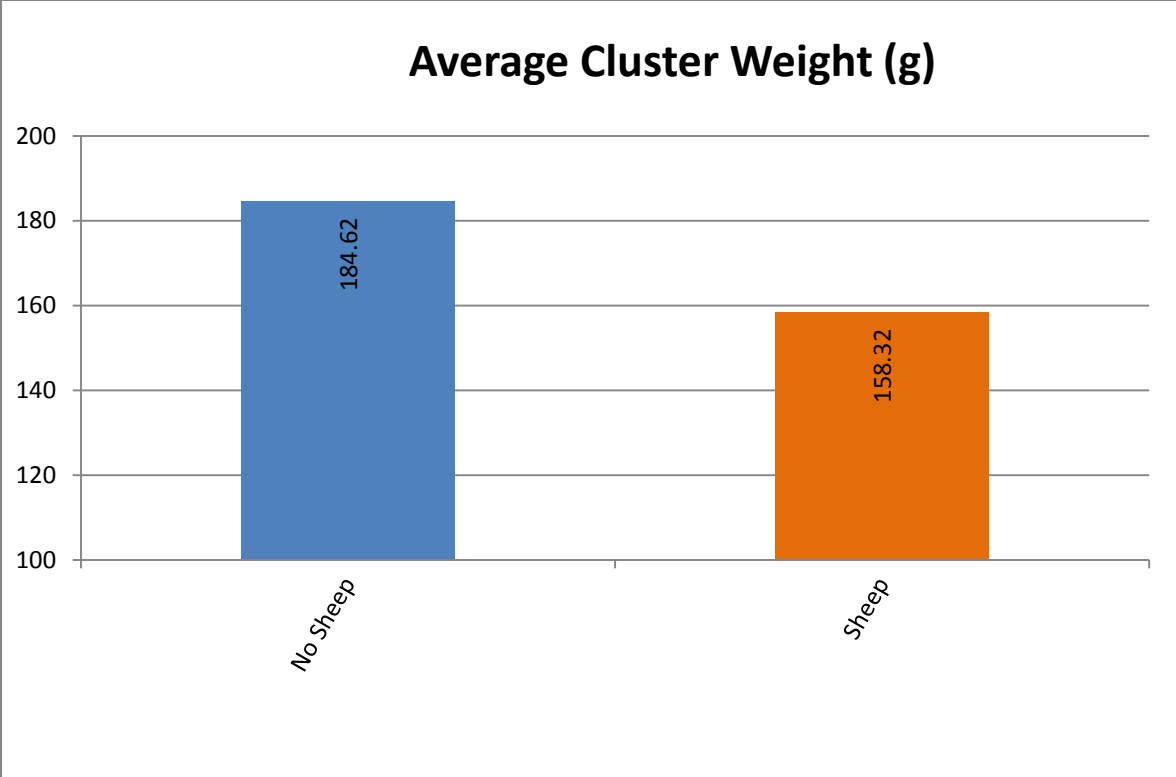
Multiple Range Tests for Yield (Kg) by Treatment

Method: 95.0 percent Duncan

Treatment	Count	Mean	Homogeneous Groups	
Sheep	40	7.6085	X	a
No Sheep	40	10.54	X	b

Contrast	Sig.	Difference
No Sheep - Sheep	*	2.9315

* denotes a statistically significant difference.



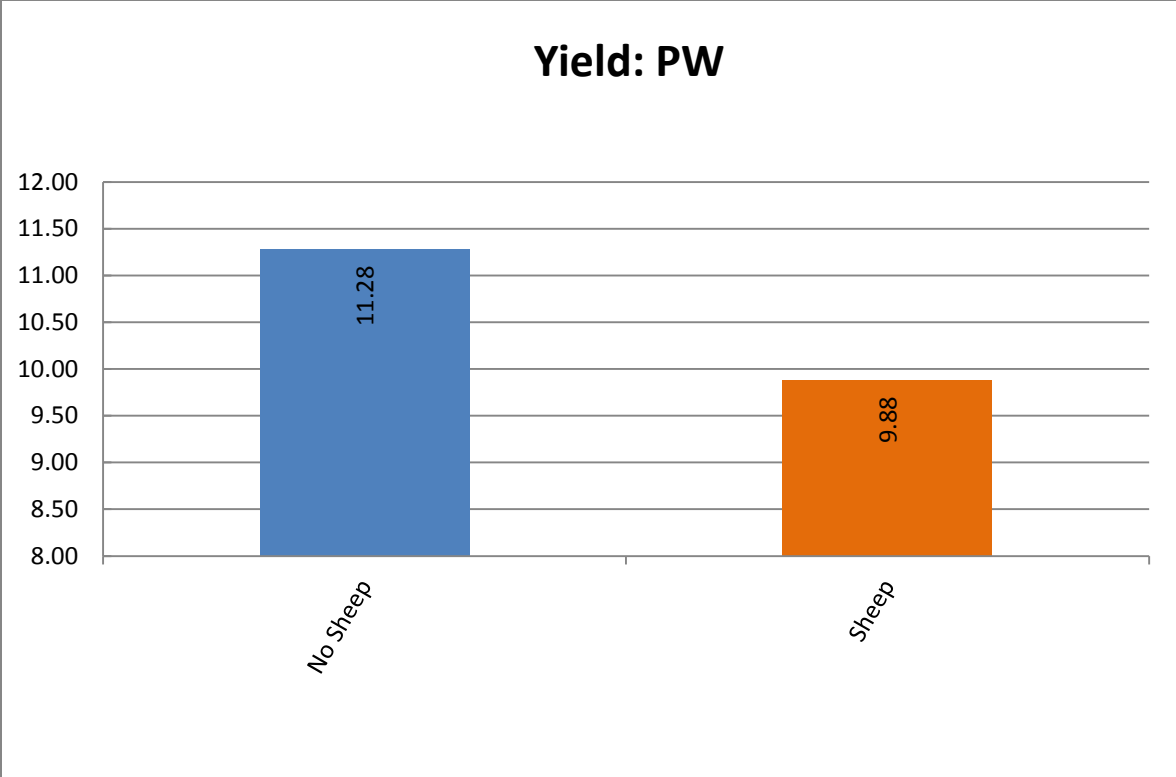
Multiple Range Tests for Av CI Wt (g) by Treatment

Method: 95.0 percent Duncan

Treatment	Count	Mean	Homogeneous Groups	
Sheep	40	158.32	X	a
No Sheep	40	184.624	X	b

Contrast	Sig.	Difference
No Sheep - Sheep	*	26.3035

* denotes a statistically significant difference.



Multiple Range Tests for Yield : PW by Treatment

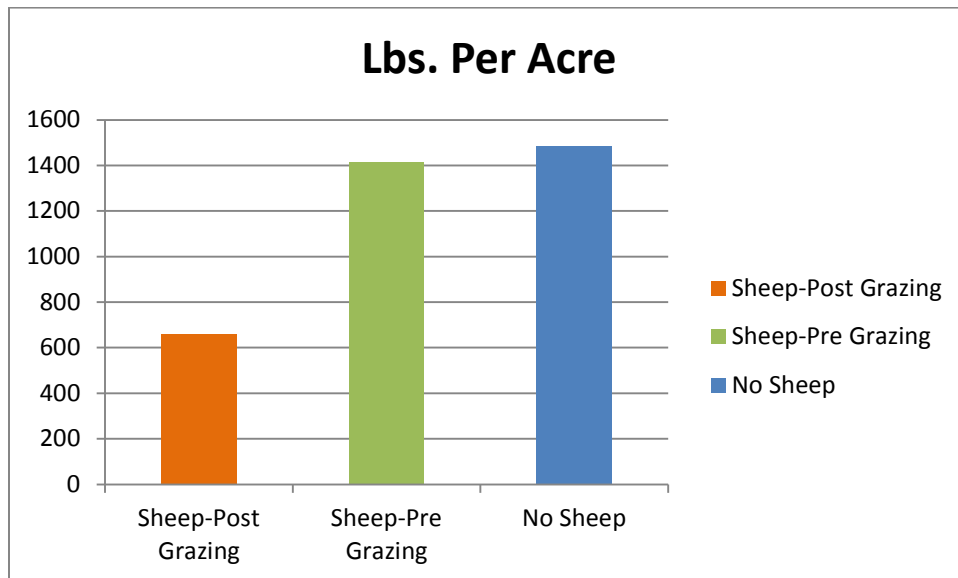
Method: 95.0 percent Duncan

Treatment	Count	Mean	Homogeneous Groups	
Sheep	40	9.881	X	a
No Sheep	40	11.2785	X	b

Contrast	Sig.	Difference
No Sheep - Sheep	*	1.3975

* denotes a statistically significant difference.

Vegetation Analysis



Multiple Range Tests for Pounds per Acre by Treatment				
Method: 95.0 percent Duncan				
Treatment	Count	Mean	Homogeneous Groups	
Sheep-Post Grazing	4	657.982	X	a
Sheep-Pre Grazing	4	1413.81	X	b
No Sheep	4	1484.42	X	b
Contrast				
No Sheep - Sheep-Post Grazing	*	826.434		
No Sheep - Sheep-Pre Grazing		70.6035		
Sheep-Post Grazing - Sheep-Pre Grazing	*	-755.83		