

```
proc glm data=weightgain;
class diet;
model avgain=diet;
lsmeans diet / pdiff; run;
```

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.84988333	0.61662778	2.38	0.1003
Error	20	5.18830000	0.25941500		
Corrected Total	23	7.03818333			

R-Square	Coeff Var	Root MSE	avgain Mean
0.262835	22.23331	0.509328	2.290833

Source	DF	Type I SS	Mean Square	F Value	Pr > F
diet	3	1.84988333	0.61662778	2.38	0.1003

Source	DF	Type III SS	Mean Square	F Value	Pr > F
diet	3	1.84988333	0.61662778	2.38	0.1003

Least Squares Means for effect diet Pr > t for H0: LSMean(i)=LSMean(j) Dependent Variable: avgain				
i/j	1	2	3	4
1		0.3018	0.1670	0.3871
2	0.3018		0.0215	0.0661
3	0.1670	0.0215		0.5886
4	0.3871	0.0661	0.5886	

Random Complete Block Design

```
proc glm data=weightgain;
class farm diet;
model avgain=farm diet;
lsmeans diet / pdiff cl adjust=tukey; run;
```

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	6.85591667	0.85698958	70.53	<.0001
Error	15	0.18226667	0.01215111		
Corrected Total	23	7.03818333			

R-Square	Coeff Var	Root MSE	avgain Mean
0.974103	4.811877	0.110232	2.290833

Source	DF	Type I SS	Mean Square	F Value	Pr > F
farm	5	5.00603333	1.00120667	82.40	<.0001
diet	3	1.84988333	0.61662778	50.75	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
farm	5	5.00603333	1.00120667	82.40	<.0001
diet	3	1.84988333	0.61662778	50.75	<.0001

Least Squares Means for effect diet Pr > t for H0: LSMean(i)=LSMean(j) Dependent Variable: avgain				
i/j	1	2	3	4
1		0.0010	<.0001	0.0048
2	0.0010		<.0001	<.0001
3	<.0001	<.0001		0.0936
4	0.0048	<.0001	0.0936	

diet	avgain LSMEAN	95% Confidence Limits	
A	2.383333	2.287414	2.479253
B	2.695000	2.599080	2.790920
C	1.961667	1.865747	2.057586
D	2.123333	2.027414	2.219253

Least Squares Means for Effect diet				
i	j	Difference Between Means	Simultaneous 95% Confidence Limits for LSMean(i)-LSMean(j)	
1	2	-0.311667	-0.495094	-0.128239
1	3	0.421667	0.238239	0.605094
1	4	0.260000	0.076573	0.443427
2	3	0.733333	0.549906	0.916761
2	4	0.571667	0.388239	0.755094
3	4	-0.161667	-0.345094	0.021761