

## CHAPTER 7 B

### APPENDIX

*Table 7.1 Analysis of variance for the effect of season on the weight gains of the Gorno Altai and the indigenous bucks*

Weight					
Source	DF	SS	MS	F Value	PR>F
Error	120	5021	41.84		
Total	143	6199			
Breed	1	6.77	6.77	0.16	0.688
Month	11	895.26	81.39	1.95	0.04
Month X Breed	11	275.91	25.08	0.6	0.826
R-square		CV			
	0.19	11.098			

*Table 7.2 Analysis of variance for the effect of season on the semen volume of the two breeds*

Volume					
Source	DF	SS	MS	F Value	PR>F
Error	120	15.89	0.13		
Total	143	21.27			
Breed	1	0.029	0.029	0.22	0.64
Month	11	2.84	0.26	1.95	0.04
Month X Breed	11	2.51	0.23	1.72	0.076
R-square		CV			
	0.25	22.57			

**Table 7.3 Analysis of variance of the effect of season on the concentration of spermatozoa produced**

<b>Concentration</b>					
Source	DF	SS	MS	F Value	PR>F
Error	120	578669.67	4822.24		
Total	143	901118			
Breed	1	5208.02	5208.03	1.08	0.301
Month	11	282692	25699.29	5.33	<0.0001
Month X Breed	11	34548.97	3140.82	0.65	0.78
R-square		CV			
0.36		49.5			

**Table 7.4 Analysis of variance of the effect of season on the number of live spermatozoa produced**

<b>N-Living</b>					
Source	DF	SS	MS	F Value	PR>F
Error	120	2799042	23325		
Total	143	3319013			
Breed	1	158802.25	158802.25	6.81	0.01
Month	11	169409	15400.82	0.66	0.77
Month X Breed	11	191759.75	17432.71	0.75	0.69
R-square		CV			
0.157		62.92			

**Table 7.5 Analysis of variance of the effect of season on the number of dead spermatozoa produced**

<b>N-Dead</b>					
Source	DF	SS	MS	F Value	PR>F
Error	120	2485.67	20.71		
Total	143	3732			
Breed	1	324	324	15.64	0.0001
Month	11	754.33	68.58	3.31	0.0005
Month X Breed	11	168	15.27	0.74	0.701
R-square		CV			
0.334		109.23			

**Table 7.6 Analysis of variance of the effect of season on the number of total spermatozoa produced**

<b>Totals</b>					
Source	DF	SS	MS	F Value	PR>F
Error	120	2794800.83	23290.01		
Total	143	3335297.83			
Breed	1	173402.84	173402.84	7.45	0.0073
Month	11	174103.91	15827.63	0.68	0.756
Month X Breed	11	192990.24	17544.57	0.75	0.6854
R-square		CV			
0.16		61.81			

**Table 7.7 Analysis of variance of the effect of season on the number of tailless spermatozoa produced**

TLS					
Source	DF	SS	MS	F Value	PR>F
Error	120	5925.17	49.38		
Total	143	6807.66			
Breed	1	5.06	5.06	0.1	0.75
Month	11	390.58	35.51	0.72	0.72
Month X Breed	11	486.85	44.26	0.9	0.55
R-square		CV			
0.13		108.92			

**Table 7.8 Analysis of variance of the effect of season on the number of coiled-tail spermatozoa produced**

CT					
Source	DF	SS	MS	F Value	PR>F
Error	120	30191.67	251.59		
Total	143	74801.31			
Breed	1	793.36	793.36	3.15	0.078
Month	11	39391.14	3581.03	14.23	<0.0001
Month X Breed	11	4425.14	402.29	1.6	0.108
R-square		CV			
0.596		110.77			

**Table 7.9 Analysis of variance of the effect of season on the scrotal circumference of the two breeds**

SC					
Source	DF	SS	MS	F Value	PR>F
Error	120	314.88	2.62		
Total	143	369.54			
Breed	1	0.04	0.04	0.02	0.898
Month	11	23.98	2.18	0.83	0.609
Month X Breed	11	30.64	2.79	1.06	0.398
R-square		CV			
0.148		5.82			

**Table 7.10 Analysis of variance of the effect of season on the number of broken at neck spermatozoa produced**

BN					
Source	DF	SS	MS	F Value	PR>F
Error	120	3055.17	25.46	1.26	0.2088
Total	143	3793.99			
Breed	1	73.67	73.67	2.89	0.092
Month	11	284.24	25.84	1.01	0.4375
Month X Breed	11	380.91	34.63	1.36	0.201
R-square		CV			
0.195		109.26			

*Table 7.11 Analysis of variance of the effect of season on the number of broken at mid piece spermatozoa produced*

<b>BM</b>					
Source	DF	SS	MS	F Value	PR>F
Error	120	722.66	6.02		
Total	143	1015.83			
Breed	1	15.34	15.34	2.55	0.113
Month	11	212.07	19.28	3.2	0.0008
Month X Breed	11	66.24	6.02	1	0.45
R-square		CV			
0.29		96.78			