

**Appendix 1a. Analysis of variance of the effect of different treatments on dry matter yield at two meadow locations and over two years**

Sources	DF	<i>F</i> values		Means
		2000	2001	
Year (Y)	1	-	-	7.13**
Location (L)	1	19.68**	22.48**	42.11**
Y x L	1	-	-	0.04
Nitrogen (N)	3	22.23**	17.54**	39.47**
Y x N	3	-	-	0.30
L x N	3	0.30	3.08*	2.52
Irrigation (I)	2	0.30	1.60	0.42
Y x I	2	-	-	1.48
L x I	2	0.23	1.58	1.20
N x I	6	0.54	2.89*	1.66
Y x L x N	3	-	-	0.86
Y x L x I	2	-	-	0.60
Y x N x I	6	-	-	1.76
L x N x I	6	0.19	0.33	0.33
Y x L x N x I	6	-	-	0.19
Error	88			

\* 0.05, \*\* 0.01.

**Appendix 1b. Analysis of variance of the effect of different treatments on crude protein content at two meadow locations and over two years**

Sources	DF	<i>F</i> values		Means
		2000	2001	
Year (Y)	1	-	-	11.96**
Location (L)	1	1.31	14.43**	3.18
Y x L	1	-	-	11.87**
Nitrogen (N)	3	36.76**	25.53**	61.02**
Y x N	3	-	-	1.86
L x N	3	0.49	2.32	2.06
Irrigation (I)	2	0.99	1.81	2.71
Y x I	2	-	-	0.05
L x I	2	1.44	0.43	0.20
N x I	6	1.02	2.19	1.92
Y x L x N	3	-	-	0.66
Y x L x I	2	-	-	1.72
Y x N x I	6	-	-	1.22
L x N x I	6	1.51	0.77	1.59
Y x L x N x I	6	-	-	0.72
Error	88	-	-	-

\*\* Significant at 0.01.

**Appendix 1c. Analysis of variance of the effect of different treatments on crude protein yield at two meadow locations and over two years**

Sources	DF	<i>F</i> values		Means
		2000	2001	
Year (Y)	1	-	-	19.21**
Location (L)	1	7.92**	28.05**	34.58**
Y x L	1	-	-	5.37*
Nitrogen (N)	3	55.19**	31.02**	80.98**
Y x N	3	-	-	0.45
L x N	3	0.19	4.04*	3.11*
Irrigation (I)	2	0.42	1.19	0.78
Y x I	2	-	-	0.99
L x I	2	0.46	1.63	0.39
N x I	6	0.59	1.01	1.23
Y x L x N	3	-	-	1.88
Y x L x I	2	-	-	1.93
Y x N x I	6	-	-	0.44
L x N x I	6	1.04	0.85	1.51
Y x L x N x I	6	-	-	0.35
Error	88	-	-	-

\* 0.05, \*\* 0.01

**Appendix 1d. Analysis of variance of the effect of different treatments on the ratio of grasses at two meadow locations and over two years**

Sources	DF	<i>F</i> values		Means
		2000	2001	
Year (Y)	1	-	-	9.84**
Location (L)	1	25.20**	0.45	19.50**
Y x L	1	-	-	13.05**
Nitrogen (N)	3	1.54*	2.83*	4.01**
Y x N	3	-	-	0.00
L x N	3	0.15	2.08	0.76
Irrigation (I)	2	0.59	0.90	0.66
Y x I	2	-	-	0.75
L x I	2	1.72	0.65	0.98
N x I	6	0.64	0.85	0.42
Y x L x N	3	-	-	0.93
Y x L x I	2	-	-	1.68
Y x N x I	6	-	-	1.00
L x N x I	6	1.88	1.00	2.28*
Y x L x N x I	6	-	-	0.84
Error	88	-	-	-

\* 0.05, \*\* 0.01.

**Appendix 1e. Analysis of variance of the effect of different treatments on the ratio of weeds at two meadow locations and over two years**

Sources	DF	<i>F</i> values		Means
		2000	2001	
Year (Y)	1	-	-	9.34**
Location (L)	1	25.20**	0.45	19.50**
Y x L	1	-	-	13.05**
Nitrogen (N)	3	1.54*	2.83*	4.01**
Y x N	3	-	-	0.00
L x N	3	0.15	2.08	0.76
Irrigation (I)	2	0.59	0.90	0.66
Y x I	2	-	-	0.75
L x I	2	1.72	0.65	0.98
N x I	6	0.64	0.85	0.42
Y x L x N	3	-	-	0.93
Y x L x I	2	-	-	1.68
Y x N x I	6	-	-	1.00
L x N x I	6	1.88	1.00	2.28*
Y x L x N x I	6	-	-	0.84
Error	88	-	-	-

\* 0.05, \*\* 0.01.