

<b>Seedlings</b>	<b>Mown</b>	<b>LitterCov</b>
144	yes	2
18	no	30
14	yes	0
10	no	25
168	no	30
70	yes	3
29	no	20
40	yes	2
31	yes	2
34	no	30
91	yes	2
30	no	50
6	no	40
32	yes	0
8	no	40
103	yes	0
61	no	35
9	yes	0
33	no	50
93	yes	2
94	yes	0
19	no	45
22	yes	3
27	no	35

<b>Observed</b>	<b>Expected</b>
126	140.625
55	46.875
60	46.875
9	15.625

<b>Obs_ind</b>	<b>Exp_ind</b>
1997	2000
3	0

<b>Individuals</b>	<b>Exp_indiv</b>
15	5.58
20	38.84
77	67.58

	<b>individuals</b>				<b>exp_indiv</b>
AA	15	Ep(AA)	0.049825	E(AA)	5.580357
Aa	20	Ep(Aa)	0.346779	E(Aa)	38.83929
aa	77	Ep(aa)	0.603396	E(aa)	67.58036
<b>sum</b>	<b>112</b>	<b>sum</b>	<b>1</b>	<b>sum</b>	<b>112</b>

	<b>alleles</b>		
A	50	p(A)	0.223214
a	174	p(a)	0.776786
<b>sum</b>	<b>224</b>	<b>sum</b>	<b>1</b>

<b>Gender</b>	<b>Solution</b>	<b>Count</b>
male	stick	32
female	stick	15
male	tree	43
female	tree	65
male	failed	25
female	failed	20

<b>Seedlings</b>	<b>Mown</b>	<b>LitterCov</b>
144	yes	2
18	no	30
14	yes	0
10	no	25
168	no	30
70	yes	3
29	no	20
40	yes	2
31	yes	2
34	no	30
91	yes	2
30	no	50
6	no	40
32	yes	0
8	no	40
103	yes	0
61	no	35
9	yes	0
33	no	50
93	yes	2
94	yes	0
19	no	45
22	yes	3
27	no	35

d13	PressBefore	PressAfter	Treatment	NO3
-10	95	90	N	3.985
-12	80	76	C	0.629
-13	85	82	C	0.463
-11	83	85	N	3.177
-15	89	94	N	5.636
-13	104	98	C	0.433
-16	92	91	N	3.344
-19	88	82	C	0.174
-11	86	77	C	0.522
-14	84	79	N	1.754
			N	1.512
			C	0.352
			C	0.026
			N	0.986
			N	0.590
			C	0.120
			C	0.228
			N	0.668
			N	0.710
			C	0.166
			N	0.044
			C	0.208
			C	0.124
			N	0.166
			C	0.070
			C	0.018
			N	0.100
			N	0.138
			C	0.084
			N	0.370
			C	0.100
			C	0.086
			N	0.016
			C	0.142
			N	0.218
			C	0.066
			N	0.140
			N	0.174
			C	0.080
			C	0.182
			N	0.430
			C	0.068
			N	0.304
			C	0.108
			C	0.112
			C	0.070

<b>Ploidy</b>	<b>Anther</b>
2n	2.9
2n	3.1
2n	3.2
2n	2.8
2n	2.9
2n	3.3
2n	3.4
2n	2.8
2n	2.7
2n	3.0
2n	3.1
4n	3.5
4n	3.8
4n	3.7
4n	3.8
4n	3.7
4n	3.5
4n	3.6
4n	3.9

<b>Cultivar</b>	<b>Health</b>	<b>ExpGrp1</b>	<b>ExpGrp2</b>
A	2	5	7
A	2	4	5
A	1	1	1
A	2	8	9
A	3	7	6
A	4	3	5
A	2	1	4
A	3	0	4
A	1	9	10
A	5	2	3
B	4		
B	5		
B	3		
B	1		
B	4		
B	3		
B	5		
B	2		
B	1		
B	2		



Height	Substrate	Till.Len	Population	Settlement Importance	
15	sand	6.9	p1	industrial	1
16	sand	7.7	p1	industrial	0
18	sand	8.6	p1	industrial	2
15	sand	6.5	p2	industrial	1
21	sand	9.9	p2	industrial	4
21	soil	12.1	p2	town	5
20	soil	14.3	p3	town	7
18	soil	14.2	p3	town	9
25	soil	23.2	p3	town	5
26	soil	13.8	p4	town	6
22	peat	13.9	p4	town	4
26	peat	17.4	p4	village	7
27	peat	28.5	p5	village	9
30	peat	38.2	p5	village	6
29	peat	11.7	p5	village	8
				village	5
				village	5

Nitrogen	Water	Height	Block	Treatment	SeedSum	PoaAngus	P	Bav
none	low	23	b1	ctrl	95	16.65	yes	yes
none	low	25	b1	rem_litt	91	4.18	yes	no
none	low	24	b1	rem_NS	64	6.64	no	yes
none	low	26	b1	rem_litt_moss	107	7.14	no	no
none	low	19	b2	ctrl	88	8.10	yes	no
none	high	32	b2	rem_litt	70	4.53	no	no
none	high	37	b2	rem_NS	51	20.41	yes	yes
none	high	34	b2	rem_litt_moss	180	12.61	no	yes
none	high	35	b3	ctrl	44	5.83	no	yes
none	high	36	b3	rem_litt	57	8.90	yes	yes
added	low	29	b3	rem_NS	55	4.65	no	no
added	low	28	b3	rem_litt_moss	173	12.22	yes	no
added	low	29	b4	ctrl	94	1.49	no	no
added	low	31	b4	rem_litt	99	2.08	no	yes
added	low	30	b4	rem_NS	53	2.69	yes	no
added	high	57	b4	rem_litt_moss	80	16.97	yes	yes
added	high	59						
added	high	62						
added	high	58						
added	high	59						

Row	Column	R-Artemisia	R-Ambrosia	R-Betula
r1	c1	1	3	2
r1	c2	2	4	0
r1	c3	2	3	2
r1	c4	0	1	0
r2	c1	1	2	2
r2	c2	3	4	3
r2	c3	0	2	0
r2	c4	1	3	2
r3	c1	1	4	4
r3	c2	0	3	2
r3	c3			
r3	c4			
r4	c1			
r4	c2			
r4	c3			
r4	c4			

Block	Treatment	SeedSum	Mown	P	PercArb
b1	ctrl	95	no	yes	15
b1	rem_litt	91	no	yes	12
b1	rem_NS	64	no	yes	8
b1	rem_litt_moss	107	no	yes	6
b2	ctrl	88	yes	yes	7
b2	rem_litt	70	yes	yes	17
b2	rem_NS	51	yes	yes	6
b2	rem_litt_moss	180	yes	yes	14
b3	ctrl	44	yes	yes	3
b3	rem_litt	57	yes	yes	15
b3	rem_NS	55	no	no	61
b3	rem_litt_moss	173	no	no	27
b4	ctrl	94	no	no	39
b4	rem_litt	99	no	no	44
b4	rem_NS	53	yes	no	18
b4	rem_litt_moss	80	yes	no	41
			yes	no	23
			yes	no	23

Soil	Pot	Seedweight	MntRange	Area	Brook	Richness	Plot	Fertil
sandy	pot1	6.15	Krkono	Krkono1	Krkono1PO1	17	1	NF
sandy	pot1	6.87	Krkono	Krkono1	Krkono1PO1	16	1	NF
sandy	pot1	6.23	Krkono	Krkono1	Krkono1PO1	16	2	FER
sandy	pot2	5.46	Krkono	Krkono1	Krkono1PO2	16	2	FER
sandy	pot2	5.90	Krkono	Krkono1	Krkono1PO2	15	3	NF
sandy	pot2	5.31	Krkono	Krkono1	Krkono1PO2	15	3	NF
sandy	pot3	6.85	Krkono	Krkono1	Krkono1PO3	18	4	FER
sandy	pot3	6.99	Krkono	Krkono1	Krkono1PO3	18	4	FER
sandy	pot3	6.05	Krkono	Krkono1	Krkono1PO3	17	5	NF
sandy	pot4	5.34	Krkono	Krkono2	Krkono2PO1	15	5	NF
sandy	pot4	5.48	Krkono	Krkono2	Krkono2PO1	13	6	FER
sandy	pot4	6.35	Krkono	Krkono2	Krkono2PO1	13	6	FER
clay	pot5	7.82	Krkono	Krkono2	Krkono2PO2	14	7	NF
clay	pot5	7.48	Krkono	Krkono2	Krkono2PO2	14	7	NF
clay	pot5	8.32	Krkono	Krkono2	Krkono2PO2	14	8	FER
clay	pot6	7.48	Krkono	Krkono2	Krkono2PO3	13	8	FER
clay	pot6	7.41	Krkono	Krkono2	Krkono2PO3	15	9	NF
clay	pot6	7.96	Krkono	Krkono2	Krkono2PO3	13	9	NF
clay	pot7	8.42	Krkono	Krkono3	Krkono3PO1	19	10	FER
clay	pot7	7.34	Krkono	Krkono3	Krkono3PO1	21	10	FER
clay	pot7	8.22	Krkono	Krkono3	Krkono3PO1	19	11	NF
clay	pot8	6.33	Krkono	Krkono3	Krkono3PO2	21	11	NF
clay	pot8	6.45	Krkono	Krkono3	Krkono3PO2	18	12	FER
clay	pot8	6.27	Krkono	Krkono3	Krkono3PO2	19	12	FER
			Krkono	Krkono3	Krkono3PO3	21		
			Krkono	Krkono3	Krkono3PO3	20		
			Krkono	Krkono3	Krkono3PO3	19		
			Orlick	Orlick1	Orlick1PO1	14		
			Orlick	Orlick1	Orlick1PO1	13		
			Orlick	Orlick1	Orlick1PO1	13		
			Orlick	Orlick1	Orlick1PO2	14		
			Orlick	Orlick1	Orlick1PO2	13		
			Orlick	Orlick1	Orlick1PO2	14		
			Orlick	Orlick1	Orlick1PO3	11		
			Orlick	Orlick1	Orlick1PO3	11		
			Orlick	Orlick1	Orlick1PO3	13		
			Orlick	Orlick2	Orlick2PO1	11		
			Orlick	Orlick2	Orlick2PO1	12		
			Orlick	Orlick2	Orlick2PO1	9		
			Orlick	Orlick2	Orlick2PO2	11		
			Orlick	Orlick2	Orlick2PO2	9		
			Orlick	Orlick2	Orlick2PO2	9		
			Orlick	Orlick2	Orlick2PO3	11		
			Orlick	Orlick2	Orlick2PO3	11		
			Orlick	Orlick2	Orlick2PO3	12		
			Orlick	Orlick3	Orlick3PO1	11		
			Orlick	Orlick3	Orlick3PO1	11		
			Orlick	Orlick3	Orlick3PO1	11		
			Orlick	Orlick3	Orlick3PO2	10		

Orlick	Orlick3	Orlick3PO2	9
Orlick	Orlick3	Orlick3PO2	10
Orlick	Orlick3	Orlick3PO3	10
Orlick	Orlick3	Orlick3PO3	9
Orlick	Orlick3	Orlick3PO3	10
Jeseni	Jeseni1	Jeseni1PO1	19
Jeseni	Jeseni1	Jeseni1PO1	19
Jeseni	Jeseni1	Jeseni1PO1	21
Jeseni	Jeseni1	Jeseni1PO2	19
Jeseni	Jeseni1	Jeseni1PO2	20
Jeseni	Jeseni1	Jeseni1PO2	20
Jeseni	Jeseni1	Jeseni1PO3	18
Jeseni	Jeseni1	Jeseni1PO3	18
Jeseni	Jeseni1	Jeseni1PO3	19
Jeseni	Jeseni2	Jeseni2PO1	23
Jeseni	Jeseni2	Jeseni2PO1	22
Jeseni	Jeseni2	Jeseni2PO1	24
Jeseni	Jeseni2	Jeseni2PO2	25
Jeseni	Jeseni2	Jeseni2PO2	25
Jeseni	Jeseni2	Jeseni2PO2	25
Jeseni	Jeseni2	Jeseni2PO3	22
Jeseni	Jeseni2	Jeseni2PO3	22
Jeseni	Jeseni2	Jeseni2PO3	22
Jeseni	Jeseni3	Jeseni3PO1	23
Jeseni	Jeseni3	Jeseni3PO1	23
Jeseni	Jeseni3	Jeseni3PO1	25
Jeseni	Jeseni3	Jeseni3PO2	23
Jeseni	Jeseni3	Jeseni3PO2	24
Jeseni	Jeseni3	Jeseni3PO2	24
Jeseni	Jeseni3	Jeseni3PO3	26
Jeseni	Jeseni3	Jeseni3PO3	24
Jeseni	Jeseni3	Jeseni3PO3	26



W	T1
W	T2
W	T3
N	T0
N	T1
N	T2
N	T3
P	T0
P	T1
P	T2
P	T3
W	T0
W	T1
W	T2
W	T3
N	T0
N	T1
N	T2
N	T3
P	T0
P	T1
P	T2
P	T3



<b>PlantH</b>	<b>PlantID</b>
5	P01
7	P01
9	P01
11	P01
6	P02
9	P02
12	P02
15	P02
7	P03
8	P03
10	P03
12	P03
5	P04
6	P04
8	P04
10	P04
5	P05
10	P05
13	P05
16	P05
6	P06
7	P06
9	P06
11	P06
6	P07
7	P07
9	P07
12	P07
4	P08
11	P08
14	P08
17	P08
7	P09
9	P09
11	P09
13	P09
6	P10
8	P10
10	P10
11	P10
5	P11
8	P11
12	P11
17	P11
4	P12
6	P12
7	P12
11	P12
6	P13

7	P13
9	P13
11	P13
5	P14
9	P14
13	P14
18	P14
6	P15
9	P15
11	P15
14	P15
4	P16
6	P16
8	P16
10	P16
6	P17
10	P17
13	P17
16	P17
5	P18
9	P18
11	P18
12	P18

TreeDens	WoodDebris	W_body	W_brain
1270	121	5	0.1
1210	41	10	0.3
1800	183	23	0.3
1875	130	23	0.4
1300	127	48	0.3
2150	134	60	1.0
1330	65	75	1.2
964	52	101	4.0
961	12	104	2.5
1400	46	120	1.0
1280	54	122	3.0
976	97	200	5.0
771	1	280	1.9
833	4	425	6.4
883	1	550	2.4
956	4	750	12.3
		785	3.5
Data from Christensen et al. (1996),		900	2.6
originally used by Quinn & Keough (:		920	5.7
		1000	6.6
		1040	5.5
		1350	8.1
		1400	12.5
		1410	17.5
		1620	11.4
		1700	6.3
		2000	12.3
		2500	12.1
		3000	25.0
		3300	25.6
		3385	44.5
		3500	10.8
		3500	3.9
		3600	21.0
		4235	50.4
		4288	39.2
		14830	98.2
		27660	115.0
		35000	56.0
		36330	119.5
		55500	175.0
		60000	81.0
		85000	325.0
		100000	157.0
		160000	169.0
		187100	419.0
		192000	180.0
		250000	490.0
		465000	423.0

521000	655.0
529000	680.0
2547000	4603.0
6654000	5712.0
58059000	6800.0

<b>Conduct</b>	<b>Ca</b>
164	22.1
155	13.6
467	37.8
171	19.6
67	6.3
78	14.2
239	22.6
123	11.0
293	31.0
50	4.2
196	18.4
125	9.4
170	9.0
91	16.7
131	16.6
104	32.7
139	12.2
61	4.5
191	41.3
285	25.0
142	47.9
138	14.9
150	14.6
87	14.7
212	46.4
42	9.5
86	12.4
74	15.1
62	17.9
240	11.9
180	39.3
140	13.1
125	16.2

<b>PoaBiom.L</b>	<b>N.tot.L</b>	<b>PO4.L</b>	<b>NH4.L</b>	<b>NO3.L</b>	<b>Weight</b>	<b>Drinks</b>	<b>Height</b>
0.951	1.434	1.338	0.206	-0.409	80	no	180
1.140	1.692	1.109	0.741	0.107	60	no	170
0.665	1.415	0.255	0.307	1.363	70	yes	165
1.156	1.677	-0.770	0.157	1.544	90	no	185
1.098	1.673	-0.523	1.272	0.918	95	yes	182
0.951	1.379	-0.337	0.830	0.580	105	yes	185
1.216	1.782	1.273	0.630	1.309	90	no	195
0.907	1.500	0.833	-0.224	1.267	111	yes	190
1.221	1.463	1.466	-0.625	-0.457	70	no	180
0.621	1.189	0.931	-0.745	-0.548	100	no	205
0.822	1.746	-0.585	1.537	0.809			
0.854	1.872	0.009	1.735	-0.097			
0.908	1.022	1.262	-0.579	-1.194			
0.656	1.192	-0.337	0.527	-0.382			
1.310	1.884	0.951	1.548	-0.483			
1.101	1.808	-0.301	1.761	0.271			
0.766	1.190	-0.310	0.637	-0.284			
0.949	1.261	-0.076	0.485	-0.085			
0.667	1.352	-0.131	0.692	-0.076			
1.087	1.447	0.807	0.330	-0.435			
0.173	1.033	-0.319	-0.033	-0.402			
0.318	1.317	-0.745	0.663	-0.370			
0.430	0.792	0.866	-5.532	-1.827			
1.230	1.656	1.022	0.970	-0.314			
0.904	1.227	0.515	0.572	-0.775			
0.818	1.312	0.919	0.001	-0.253			
0.635	1.194	-0.638	0.691	-0.026			
0.420	1.173	-0.398	0.124	-0.130			
0.507	1.058	0.521	0.196	-0.336			
0.864	1.215	-0.092	0.521	-0.487			
0.613	1.711	0.867	1.156	0.566			
0.650	1.591	0.253	1.264	0.196			
0.863	1.385	-0.469	0.831	0.050			
0.982	1.328	0.691	-0.155	-0.140			
0.796	1.465	0.393	0.783	0.262			
0.982	1.204	0.481	-0.464	-0.373			
0.647	1.177	-0.357	-0.032	0.586			
0.796	1.394	-0.328	0.656	0.205			
0.535	1.405	0.511	-0.464	1.218			
1.097	1.501	1.262	-0.055	1.228			

<b>PoaBiom</b>	<b>N.total</b>	<b>PO4.P</b>	<b>NH4.N</b>	<b>NO3.N</b>
8.93	27.19	21.77	1.61	0.39
13.81	49.15	12.85	5.51	1.28
4.62	25.98	1.80	2.03	23.06
14.32	47.57	0.17	1.44	34.99
12.53	47.13	0.30	18.69	8.27
8.93	23.91	0.46	6.76	3.80
16.46	60.53	18.75	4.26	20.37
8.07	31.59	6.80	0.60	18.50
16.65	29.07	29.26	0.24	0.35
4.18	15.45	8.53	0.18	0.28
6.64	55.76	0.26	34.40	6.45
7.14	74.48	1.02	54.29	0.80
8.1	10.53	18.29	0.26	0.06
4.53	15.55	0.46	3.37	0.41
20.41	76.51	8.94	35.30	0.33
12.61	64.32	0.50	57.70	1.87
5.83	15.49	0.49	4.34	0.52
8.9	18.23	0.84	3.06	0.82
4.65	22.49	0.74	4.92	0.84
12.22	27.96	6.41	2.14	0.37
1.49	10.78	0.48	0.93	0.40
2.08	20.73	0.18	4.60	0.43
2.69	6.19	7.34	0.00	0.01
16.97	45.27	10.52	9.34	0.49
8.01	16.86	3.27	3.74	0.17
6.57	20.51	8.29	1.00	0.56
4.32	15.62	0.23	4.91	0.94
2.63	14.89	0.40	1.33	0.74
3.21	11.42	3.32	1.57	0.46
7.31	16.42	0.81	3.32	0.33
4.1	51.37	7.36	14.33	3.68
4.47	38.98	1.79	18.36	1.57
7.3	24.25	0.34	6.77	1.12
9.6	21.28	4.91	0.70	0.72
6.25	29.18	2.47	6.07	1.83
9.59	16.01	3.03	0.34	0.42
4.44	15.03	0.44	0.93	3.86
6.25	24.76	0.47	4.53	1.60
3.43	25.42	3.24	0.34	16.51
12.5	31.66	18.27	0.88	16.92

<b>PoaPrat</b>	<b>A1hor</b>	<b>Colony</b>	<b>Shrubs</b>	<b>Cereal</b>	<b>Count</b>
1	2.8	large	yes	none	0
1	3.5	large	yes	winter	9
1	4.3	large	yes	spring	6
1	4.2	large	no	none	3
1	6.3	large	no	winter	20
1	4.3	large	no	spring	8
1	2.8	small	yes	none	4
1	4.2	small	yes	winter	6
1	3.7	small	yes	spring	10
1	3.3	small	no	none	0
1	3.5	small	no	winter	2
0	5.8	small	no	spring	3
1	6	none	yes	none	12
0	9.3	none	yes	winter	8
0	11.5	none	yes	spring	14
0	5.7	none	no	none	10
1	4	none	no	winter	2
1	4.6	none	no	spring	9
0	3.7				
0	3.5				



<b>CO2</b>	<b>C.uptake</b>
100	11.22
100	12.98
100	12.09
150	20.63
150	23.92
150	19.63
300	27.19
300	30.65
300	27.79
400	30.06
400	34.86
400	28.23
500	32.96
500	35.22
500	28.82
750	33.10
750	31.69
750	29.35
1000	37.80
1000	32.73
1000	27.88

**Model asymptotickeho rustu**

$$CO2 = b0*(1-\exp(-\exp(b1)*(x-b2)))$$

b0

b1

b2

<b>dose</b>	<b>cover</b>	<b>NSP</b>
0	5	10
0	5	7
0	5	9
0	5	12
0	10	9
0	15	9
0	15	7
0	15	10
0	15	8
0	15	11
0	15	8
0	20	9
0	20	9
0	20	13
0	20	6
0	20	5
0	20	9
0	15	6
0	30	11
1	60	8
1	80	4
1	80	5
1	30	7
1	50	6
1	50	8
1	30	11
1	90	5
1	70	2
1	80	4
1	70	6
1	70	5
1	45	6
1	90	5
1	100	5
1	60	9
1	55	4
1	60	5
1	70	5
1	90	4
1	90	3
1	90	3
1	70	5
1	70	5
1	40	4
1	50	3
1	50	10
1	50	7
1	50	7
1	50	7

1	50	7
1	80	4
1	80	5
1	60	6
1	70	6
1	60	4
1	50	5
1	40	5
1	35	4
1	35	5
1	40	6
1	30	7
1	30	7
1	30	6
1	30	8
1	30	6
1	50	6
1	50	7
1	20	6
1	40	3
1	60	5
1	50	7
1	55	6
1	60	6
1	75	4
1	50	4
1	75	4
2	70	3
2	75	6
2	80	10
2	90	2
2	95	2
2	90	3
2	100	4
2	95	2
2	90	2
2	90	2
2	90	5
2	90	4
2	90	3
2	70	7
2	80	5
2	80	4
2	60	8
2	40	7
2	70	3
2	50	6
2	50	10
2	45	5
2	50	5

2	50	7
2	50	8
2	80	6
2	60	7
2	40	6
2	100	5
2	100	2
2	80	6
2	80	4
2	100	2
2	100	6
2	70	8
2	70	4
2	90	3
2	90	4
2	90	3
2	90	8
2	100	2
2	100	1
2	100	1
2	100	2
2	100	1
2	100	1

<b>NumCarps</b>	<b>NumParas</b>	<b>xPos</b>	<b>yPos</b>
25	0	74.4	90.4
15	1	37.7	6.9
11	2	60.8	32.2
13	3	81.4	34.0
10	4	39.9	95.1
6	5	19.7	91.1
2	6	28.9	96.4
1	8	7.2	66.6
1	12	86.1	6.8
1	15	69.6	39.4
1	18	84.0	43.7
		90.3	40.6
		69.1	73.1
		71.2	79.9
		75.8	51.0
		68.6	91.7
		89.8	69.3
		25.0	86.0
		84.4	64.9
		83.4	73.8
		85.7	52.9
		98.3	67.8
		3.4	86.8
		10.4	71.4
		9.6	83.2
		5.6	65.9
		34.5	33.2
		24.9	26.7
		54.6	18.6
		57.0	24.6
		95.0	63.1
		16.8	71.2
		30.9	89.5
		13.1	75.6
		36.4	67.1

Ach mil	Agr sto	Air pra	Alo gen	Ant odo	Bel per	Bro hor	Che alb	Cir arv
1	0	0	0	0	0	0	0	0
3	0	0	2	0	3	4	0	0
0	4	0	7	0	2	0	0	0
0	8	0	2	0	2	3	0	2
2	0	0	0	4	2	2	0	0
2	0	0	0	3	0	0	0	0
2	0	0	0	2	0	2	0	0
0	4	0	5	0	0	0	0	0
0	3	0	3	0	0	0	0	0
4	0	0	0	4	2	4	0	0
0	0	0	0	0	0	0	0	0
0	4	0	8	0	0	0	0	0
0	5	0	5	0	0	0	1	0
0	4	0	0	0	0	0	0	0
0	4	0	0	0	0	0	0	0
0	7	0	4	0	0	0	0	0
2	0	2	0	4	0	0	0	0
0	0	0	0	0	2	0	0	0
0	0	3	0	4	0	0	0	0
0	5	0	0	0	0	0	0	0

Ele pal	Ely rep	Emp nig	Hyp rad	Jun art	Jun buf	Leo aut	Lol per	Pla lan
0	4	0	0	0	0	0	7	0
0	4	0	0	0	0	5	5	0
0	4	0	0	0	0	2	6	0
0	4	0	0	0	0	2	5	0
0	4	0	0	0	0	3	2	5
0	0	0	0	0	0	3	6	5
0	0	0	0	0	2	3	6	5
4	0	0	0	4	0	3	4	0
0	6	0	0	4	4	2	2	0
0	0	0	0	0	0	3	6	3
0	0	0	2	0	0	5	7	3
0	0	0	0	0	4	2	0	0
0	0	0	0	0	3	2	0	0
4	0	0	0	0	0	2	0	0
5	0	0	0	3	0	2	0	0
8	0	0	0	3	0	0	0	0
0	0	0	2	0	0	2	0	2
0	0	0	0	0	0	5	2	3
0	0	2	5	0	0	6	0	0
4	0	0	0	4	0	2	0	0

Poa pra	Poa tri	Pot pal	Ran fla	Rum ace	Sag pro	Sal rep	Tri pra	Tri rep
4	2	0	0	0	0	0	0	0
4	7	0	0	0	0	0	0	5
5	6	0	0	0	0	0	0	2
4	5	0	0	0	5	0	0	1
2	6	0	0	5	0	0	2	2
3	4	0	0	6	0	0	5	5
4	5	0	0	3	0	0	2	2
4	4	0	2	0	2	0	0	2
4	5	0	0	2	2	0	0	3
4	4	0	0	0	0	0	0	6
4	0	0	0	0	2	0	0	3
0	4	0	0	2	4	0	0	3
2	9	0	2	0	2	0	0	2
0	0	2	2	0	0	0	0	6
0	0	2	2	0	0	0	0	1
0	2	0	2	0	0	0	0	0
1	0	0	0	0	0	0	0	0
3	0	0	0	0	0	3	0	2
0	0	0	0	0	3	3	0	2
0	0	0	4	0	0	5	0	0



Vic lat	Bra rut	Cal cus
0	0	0
0	0	0
0	2	0
0	2	0
0	2	0
0	6	0
0	2	0
0	2	0
0	2	0
1	2	0
2	4	0
0	4	0
0	0	0
0	0	4
0	4	0
0	4	3
0	0	0
1	6	0
0	3	0
0	4	3

Ach mil	Agr sto	Air pra	Alo gen	Ant odo	Bel per	Bro hor	Che alb	Cir arv
1	0	0	0	0	0	0	0	0
3	0	0	2	0	3	4	0	0
0	4	0	7	0	2	0	0	0
0	8	0	2	0	2	3	0	2
2	0	0	0	4	2	2	0	0
2	0	0	0	3	0	0	0	0
2	0	0	0	2	0	2	0	0
0	4	0	5	0	0	0	0	0
0	3	0	3	0	0	0	0	0
4	0	0	0	4	2	4	0	0
0	0	0	0	0	0	0	0	0
0	4	0	8	0	0	0	0	0
0	5	0	5	0	0	0	1	0
0	4	0	0	0	0	0	0	0
0	4	0	0	0	0	0	0	0
0	7	0	4	0	0	0	0	0
2	0	2	0	4	0	0	0	0
0	0	0	0	0	2	0	0	0
0	0	3	0	4	0	0	0	0
0	5	0	0	0	0	0	0	0







Ele pal	Ely rep	Emp nig	Hyp rad	Jun art	Jun buf	Leo aut	Lol per	Pla lan
0	4	0	0	0	0	0	7	0
0	4	0	0	0	0	5	5	0
0	4	0	0	0	0	2	6	0
0	4	0	0	0	0	2	5	0
0	4	0	0	0	0	3	2	5
0	0	0	0	0	0	3	6	5
0	0	0	0	0	2	3	6	5
4	0	0	0	4	0	3	4	0
0	6	0	0	4	4	2	2	0
0	0	0	0	0	0	3	6	3
0	0	0	2	0	0	5	7	3
0	0	0	0	0	4	2	0	0
0	0	0	0	0	3	2	0	0
4	0	0	0	0	0	2	0	0
5	0	0	0	3	0	2	0	0
8	0	0	0	3	0	0	0	0
0	0	0	2	0	0	2	0	2
0	0	0	0	0	0	5	2	3
0	0	2	5	0	0	6	0	0
4	0	0	0	4	0	2	0	0









Poa pra	Poa tri	Pot pal	Ran fla	Rum ace	Sag pro	Sal rep	Tri pra	Tri rep
4	2	0	0	0	0	0	0	0
4	7	0	0	0	0	0	0	5
5	6	0	0	0	0	0	0	2
4	5	0	0	0	5	0	0	1
2	6	0	0	5	0	0	2	2
3	4	0	0	6	0	0	5	5
4	5	0	0	3	0	0	2	2
4	4	0	2	0	2	0	0	2
4	5	0	0	2	2	0	0	3
4	4	0	0	0	0	0	0	6
4	0	0	0	0	2	0	0	3
0	4	0	0	2	4	0	0	3
2	9	0	2	0	2	0	0	2
0	0	2	2	0	0	0	0	6
0	0	2	2	0	0	0	0	1
0	2	0	2	0	0	0	0	0
1	0	0	0	0	0	0	0	0
3	0	0	0	0	0	3	0	2
0	0	0	0	0	3	3	0	2
0	0	0	4	0	0	5	0	0







Vic lat	Bra rut	Cal cus		A1Horiz	Moisture	Mngmnt	Manure
0	0	0		2.8	1	SF	4
0	0	0		3.5	1	BF	2
0	2	0		4.3	2	SF	4
0	2	0		4.2	2	SF	4
0	2	0		6.3	1	HF	2
0	6	0		4.3	1	HF	2
0	2	0		2.8	1	HF	3
0	2	0		4.2	5	HF	3
0	2	0		3.7	4	HF	1
1	2	0		3.3	2	BF	1
2	4	0		3.5	1	BF	1
0	4	0		5.8	4	SF	2
0	0	0		6	5	SF	3
0	0	4		9.3	5	NM	0
0	4	0		11.5	5	NM	0
0	4	3		5.7	5	SF	3
0	0	0		4	2	NM	0
1	6	0		4.6	1	NM	0
0	3	0		3.7	5	NM	0
0	4	3		3.5	5	NM	0









Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa
4.6	3.4	1.4	0.3	setosa
5	3.4	1.5	0.2	setosa
4.4	2.9	1.4	0.2	setosa
4.9	3.1	1.5	0.1	setosa
5.4	3.7	1.5	0.2	setosa
4.8	3.4	1.6	0.2	setosa
4.8	3	1.4	0.1	setosa
4.3	3	1.1	0.1	setosa
5.8	4	1.2	0.2	setosa
5.7	4.4	1.5	0.4	setosa
5.4	3.9	1.3	0.4	setosa
5.1	3.5	1.4	0.3	setosa
5.7	3.8	1.7	0.3	setosa
5.1	3.8	1.5	0.3	setosa
5.4	3.4	1.7	0.2	setosa
5.1	3.7	1.5	0.4	setosa
4.6	3.6	1	0.2	setosa
5.1	3.3	1.7	0.5	setosa
4.8	3.4	1.9	0.2	setosa
5	3	1.6	0.2	setosa
5	3.4	1.6	0.4	setosa
5.2	3.5	1.5	0.2	setosa
5.2	3.4	1.4	0.2	setosa
4.7	3.2	1.6	0.2	setosa
4.8	3.1	1.6	0.2	setosa
5.4	3.4	1.5	0.4	setosa
5.2	4.1	1.5	0.1	setosa
5.5	4.2	1.4	0.2	setosa
4.9	3.1	1.5	0.2	setosa
5	3.2	1.2	0.2	setosa
5.5	3.5	1.3	0.2	setosa
4.9	3.6	1.4	0.1	setosa
4.4	3	1.3	0.2	setosa
5.1	3.4	1.5	0.2	setosa
5	3.5	1.3	0.3	setosa
4.5	2.3	1.3	0.3	setosa
4.4	3.2	1.3	0.2	setosa
5	3.5	1.6	0.6	setosa
5.1	3.8	1.9	0.4	setosa
4.8	3	1.4	0.3	setosa
5.1	3.8	1.6	0.2	setosa
4.6	3.2	1.4	0.2	setosa
5.3	3.7	1.5	0.2	setosa

5	3.3	1.4	0.2 setosa
7	3.2	4.7	1.4 versicolor
6.4	3.2	4.5	1.5 versicolor
6.9	3.1	4.9	1.5 versicolor
5.5	2.3	4	1.3 versicolor
6.5	2.8	4.6	1.5 versicolor
5.7	2.8	4.5	1.3 versicolor
6.3	3.3	4.7	1.6 versicolor
4.9	2.4	3.3	1 versicolor
6.6	2.9	4.6	1.3 versicolor
5.2	2.7	3.9	1.4 versicolor
5	2	3.5	1 versicolor
5.9	3	4.2	1.5 versicolor
6	2.2	4	1 versicolor
6.1	2.9	4.7	1.4 versicolor
5.6	2.9	3.6	1.3 versicolor
6.7	3.1	4.4	1.4 versicolor
5.6	3	4.5	1.5 versicolor
5.8	2.7	4.1	1 versicolor
6.2	2.2	4.5	1.5 versicolor
5.6	2.5	3.9	1.1 versicolor
5.9	3.2	4.8	1.8 versicolor
6.1	2.8	4	1.3 versicolor
6.3	2.5	4.9	1.5 versicolor
6.1	2.8	4.7	1.2 versicolor
6.4	2.9	4.3	1.3 versicolor
6.6	3	4.4	1.4 versicolor
6.8	2.8	4.8	1.4 versicolor
6.7	3	5	1.7 versicolor
6	2.9	4.5	1.5 versicolor
5.7	2.6	3.5	1 versicolor
5.5	2.4	3.8	1.1 versicolor
5.5	2.4	3.7	1 versicolor
5.8	2.7	3.9	1.2 versicolor
6	2.7	5.1	1.6 versicolor
5.4	3	4.5	1.5 versicolor
6	3.4	4.5	1.6 versicolor
6.7	3.1	4.7	1.5 versicolor
6.3	2.3	4.4	1.3 versicolor
5.6	3	4.1	1.3 versicolor
5.5	2.5	4	1.3 versicolor
5.5	2.6	4.4	1.2 versicolor
6.1	3	4.6	1.4 versicolor
5.8	2.6	4	1.2 versicolor
5	2.3	3.3	1 versicolor
5.6	2.7	4.2	1.3 versicolor
5.7	3	4.2	1.2 versicolor
5.7	2.9	4.2	1.3 versicolor
6.2	2.9	4.3	1.3 versicolor
5.1	2.5	3	1.1 versicolor

5.7	2.8	4.1	1.3	versicolor
6.3	3.3	6	2.5	virginica
5.8	2.7	5.1	1.9	virginica
7.1	3	5.9	2.1	virginica
6.3	2.9	5.6	1.8	virginica
6.5	3	5.8	2.2	virginica
7.6	3	6.6	2.1	virginica
4.9	2.5	4.5	1.7	virginica
7.3	2.9	6.3	1.8	virginica
6.7	2.5	5.8	1.8	virginica
7.2	3.6	6.1	2.5	virginica
6.5	3.2	5.1	2	virginica
6.4	2.7	5.3	1.9	virginica
6.8	3	5.5	2.1	virginica
5.7	2.5	5	2	virginica
5.8	2.8	5.1	2.4	virginica
6.4	3.2	5.3	2.3	virginica
6.5	3	5.5	1.8	virginica
7.7	3.8	6.7	2.2	virginica
7.7	2.6	6.9	2.3	virginica
6	2.2	5	1.5	virginica
6.9	3.2	5.7	2.3	virginica
5.6	2.8	4.9	2	virginica
7.7	2.8	6.7	2	virginica
6.3	2.7	4.9	1.8	virginica
6.7	3.3	5.7	2.1	virginica
7.2	3.2	6	1.8	virginica
6.2	2.8	4.8	1.8	virginica
6.1	3	4.9	1.8	virginica
6.4	2.8	5.6	2.1	virginica
7.2	3	5.8	1.6	virginica
7.4	2.8	6.1	1.9	virginica
7.9	3.8	6.4	2	virginica
6.4	2.8	5.6	2.2	virginica
6.3	2.8	5.1	1.5	virginica
6.1	2.6	5.6	1.4	virginica
7.7	3	6.1	2.3	virginica
6.3	3.4	5.6	2.4	virginica
6.4	3.1	5.5	1.8	virginica
6	3	4.8	1.8	virginica
6.9	3.1	5.4	2.1	virginica
6.7	3.1	5.6	2.4	virginica
6.9	3.1	5.1	2.3	virginica
5.8	2.7	5.1	1.9	virginica
6.8	3.2	5.9	2.3	virginica
6.7	3.3	5.7	2.5	virginica
6.7	3	5.2	2.3	virginica
6.3	2.5	5	1.9	virginica
6.5	3	5.2	2	virginica
6.2	3.4	5.4	2.3	virginica

5.9

3

5.1

1.8 virginica