Technical Report No. 249

PRIMARY PRODUCTION ON THE JORNADA SITE FOR 1972

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GRASSLAND BIOME

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ABSTRACT

Precipitation during 1972 was much more favorable for plant growth than that of the previous 2 years. Total precipitation from January through October was almost 276 mm. Of this total, 267 mm fell from June through October.

Peak aboveground live biomass of 108 g/m^2 on the ungrazed treatment was recorded on 9 August. On the grazed treatment peak standing crop of live vegetation of 97 g/m^2 occurred on 20 September. On the ungrazed treatment black grama reached its peak aboveground biomass on 14 June, but declined little until 20 September. Russian thistle reached its peak in September on both treatments. Belowground biomass and litter showed few seasonal trends.

INTRODUCTION

Field work during the 1972 season was similar to that conducted during 1970 and 1971. The overall objectives of the project remained the same. Data for 1972 should be very helpful since growing conditions were much more favorable than those of the first two years. Data will be used to validate and test some of the models being developed.

METHODS AND PROCEDURES

Methods used during 1972 followed those outlined by Swift and French (1972). The major change in procedures was to use only one quadrat size, a 0.5 m^2 circle. In 1971 a 2.0 m^2 circle was also used for shrubby species. Samples were collected on 12 dates during the year and processed in a manner similar to that used during the previous years.

The weight estimate method was used again this year. In each replication 20 quadrats were clipped and 120 estimated only. Aboveground standing crop was separated into old dead, recent dead, live and perennial live. Litter was also collected and weighed.

RESULTS

Table 1 shows precipitation by storm and month. Although the winter and spring months were very dry from January through May, growing season precipitation was high. From June through October almost 270 mm of rain was received. The total precipitation from January through October was 276 mm.

This distribution pattern of precipitation through the growing season resulted in different growth periods for different species and groups of

Table 1. Precipitation records at Jornada Site, 1972

Date	Precipitation		Date	Precipitation	
	Inches	mm		Inches	mm
28 December 1971	0.76	19.3	13 August	0.43	10.9
8 January 1972	0.08	2.0	20 August	0.23	5.8
14 May	0.16	4.1	21 August	0.13	3.3
28 May	0.10	2.5	28 August	1.40	35.6
6 June	0.42	10.7	1 September	0.45	11.4
11 June	1.19	30.2	3 September	0.65	16.5
18 June	0.41	10.4	9 September	0.26	6.6
4 July	0.23	5.8	5 October	0.34	8.6
11 July	0.61	15.5	11 October	0.21	5.3
19 July	0.60	15.2	20 October	1.85	47.0
7 August	0.35	8.9	21 October	0.18	4.6
8 August	0.51	13.0	25 October	0.41	10.4
			Monthly Totals		
January	0.08	2.0	June	2.02	51.3
February	0	0	July	1.44	36.5
March	0	0	August	3.05	77.5
April	0	0	September	1.36	34.5
May	0.26	6.6	October	2.65	67.3
			Total	10.86	275.7

species. The growth of forbs occurred early in the season (June and July) followed by growth of grasses (July through September). On the ungrazed treatment there was an early peak of 65.31 g/m^2 of live material on 14 June and a later peak of 108.25 g/m^2 on 8 August (Table 2). The early peak occurred on 28 March on the grazed treatment and the later one on 20 September. A great difference is not apparent between the two treatments when these peaks are compared (Table 2). Black grama (*Bouteloua eriopoda*) contributed a large portion of the biomass in the ungrazed treatment with peaks of 31 g/m^2 on 14 June and 20 September (Table 3). Apparently the late summer rains stimulated some late season growth in this species. Russian thistle (*Salsola kali*) filled in the open spaces and reached a peak biomass of 27.5 g/m^2 also on 20 September. Russian thistle was also a major contributor to the total live biomass on the grazed area (Table 4) and had a peak standing weight similar to that on the ungrazed treatment. Mesa dropseed (*Sporobolus flexuosus*) was very prominent on grazed site where it produced most of its peak biomass of 21 g/m^2 between 21 August and 20 September (Table 4).

A complete list of species sampled during 1972 is given in Appendix I. The relatively large amount of precipitation received during the growing season is primarily responsible for the high number of species found on the area.

The standing crop of old dead vegetation reached a peak on 14 June and afterwards the trend was erratic on the ungrazed area (Table 5). Little variation occurred among dates during the summer in standing crop of dead vegetation on the grazed treatment. Standing crop of recent dead vegetation was high during the spring and early summer, but declined during the late summer period, probably because most of the old dead from 1971

Table 2. Standing crop of live vegetation (g/m^2) on the Jornada Site during 1972.

Date	Ungrazed		Grazed	
	Mean	SE	Mean	SE
17 January	0.39	0.15	0.23	0.07
24 February	7.34	3.18	4.24	1.13
28 March	16.18	3.38	42.64	12.54
12 May	22.32	2.48	36.91	3.98
14 June	65.31	16.57	30.41	4.99
28 June	31.57	5.08	29.69	2.79
17 July	52.84	5.86	38.96	3.63
8 August	108.25	49.22	50.16	11.93
21 August	86.20	6.02	52.93	5.89
20 September	104.70	7.89	97.26	8.45

Table 3. Standing crop of live aboveground material for important species[a/] on ungrazed treatment on Jornada Site during 1971.

Date	BOER4		SPFL		BOBA2		SAKA	
	$\bar{X}$	SE	$\bar{X}$	SE	$\bar{X}$	SE	$\bar{X}$	SE
17 January	0	0	0	0	0	0	0	0
24 February	0	0	0	0	0	0	0	0
28 March	0	0	0.2	0.1	0	0	0.1	0.01
12 May	0	0	0.3	0.2	0	0	0.5	0.13
14 June	31.4	7.3	3.5	2.0	0	0	1.1	0.4
28 June	13.5	5.1	2.6	0.6	0.9	0.9	4.8	1.4
17 July	14.5	4.7	2.5	1.1	0	0	8.4	3.7
8 August	26.2	5.4	1.8	0.8	0.2	0.1	16.4	4.4
21 August	26.1	5.8	6.7	2.4	4.4	1.8	13.9	3.6
20 September	31.3	7.8	6.9	2.8	6.6	2.0	27.5	6.8

a/ See Appendix I for species code.

Table 4. Standing crop of live aboveground material for important species[a/] on grazed treatment on Jornada Site during 1972.

Date	SPFL		DIWI		SAKA		GUSA	
	$\bar{X}$	SE	$\bar{X}$	SE	$\bar{X}$	SE	$\bar{X}$	SE
17 January	0	0	0	0	0	0	0.1	0.04
24 February	0	0	0.3	0.2	0.02	0.02	0.3	0.2
28 March	1.5	0.8	1.9	1.0	0.02	0.01	0.4	0.4
12 May	1.3	0.2	2.6	0.2	0.7	0.1	1.0	0.6
14 June	1.9	0.7	5.4	2.7	2.5	0.7	6.4	4.5
28 June	4.2	1.6	2.6	1.1	1.9	0.6	4.7	2.2
17 July	2.5	1.1	6.8	3.4	8.4	3.7	2.1	1.7
8 August	3.0	1.3	0.9	0.5	12.4	3.4	3.0	1.7
21 August	3.5	1.1	1.8	1.5	21.3	4.8	2.7	0.8
20 September	20.9	6.6	6.2	3.1	21.5	7.1	6.4	3.4

a/ See Appendix I for species codes.

Table 5. Standing crop of old dead vegetation (g/m^2) on the Jornada Site during 1972.

Date	Ungrazed		Grazed	
	Mean	SE	Mean	SE
17 January	1.90	1.04	2.57	1.37
24 February	4.12	1.43	2.49	1.58
28 March	0.78	0.65	6.38	3.08
12 May	9.34	4.09	4.13	1.90
14 June	20.16	11.58	6.43	4.91
28 June	17.71	13.25	9.52	7.34
17 July	6.57	2.78	8.99	4.69
8 August	9.04	4.47	8.93	6.42
21 August	10.73	6.08	9.02	5.47
20 September	6.13	4.42	9.06	5.35

was classified as recent dead in 1972 (Table 6). It would appear that most of the live vegetation was converted to standing dead compartment after September. Litter values again fluctuated greatly and were characterized by large standard deviations (Table 7).

Belowground biomass was higher on the grazed treatment than on ungrazed treatment except for 21 August (Table 8). Belowground biomass decreased with depth with a few exceptions on both treatments.

Table 6. Standing crop of recent dead (g/m^2) on the Jornada Site for 1972.

Date	Ungrazed		Grazed	
	Mean	SE	Mean	SE
17 January	39.06	6.10	23.87	4.82
24 February	79.40	53.79	13.91	5.22
28 March	19.06	6.05	19.62	5.55
12 May	27.88	5.48	5.52	1.24
14 June	48.69	35.45	4.02	1.50
28 June	13.50	2.21	12.74	2.70
17 July	10.89	2.22	6.28	1.50
8 August	11.91	2.26	6.57	1.44
21 August	6.07	1.67	1.91	0.56
20 September	0.26	0.74	0.21	0.15

Table 7. Standing crop of litter (g/m^2) on the Jornada Site in 1972.

Date	Ungrazed		Grazed	
	Mean	SD	Mean	SD
17 January	18.75	16.19	15.50	13.76
24 February	52.15	101.07	24.66	24.32
28 March	26.46	29.75	23.01	13.69
14 June	8.46	9.27	14.84	18.72
8 August	28.61	46.38	17.64	21.62
21 August	25.03	18.12	18.21	15.57
20 September	21.79	12.65	20.18	22.96

Table 8. Belowground biomass for Jornada Site during 1972.

Date	Depth (cm)	Ungrazed		Grazed	
		Mean	SD	Mean	SD
24 February	0-10	77.0	4.81	131.4	101.8
	10-20	52.7	22.4	53.2	39.0
	20-30	34.1	18.3	33.1	21.7
	Total	163.7		217.6	
28 March	0-10	70.8	86.2	63.5	17.7
	10-20	22.0	8.9	129.0	103.0
	20-30	17.0	11.3	25.5	4.1
	Total	109.8		217.9	
14 June	0-10	96.7	12.8	91.3	
	10-20	31.2	5.8	34.4	
	20-30	24.1	6.6	42.7	
	Total	152.0		168.3	
21 August	0-10	97.9	13.6	60.3	9.4
	10-20	47.4	7.3	21.3	3.0
	20-30	32.2	5.9	17.9	2.6
	Total	177.5		99.4	

LITERATURE CITED

Swift, D. M. and N. R. French [Coordinators]. 1972. Basic field data collection procedures for the Grassland Biome 1972 season. U.S. IBP Grassland Biome Tech. Rep. No. 145. Colorado State Univ., Fort Collins. 86 p.

APPENDIX I

SPECIES SYMBOLS FOR JORNADA SITE SAMPLES, 1972

Species	Symbol
Grasses	
Aristida adscensionis L.	ARAD
Aristida longiseta Steud.	ARLO3
Bouteloua aristidoides (H.B.K.) Griseb.	BOAR
Bouteloua barbata Lag.	BOBA2
Bouteloua eriopoda (Torr.) Torr.	BOER4
Enneapogon desvauxii Beauv.	ENDE
Erigeron pulchellus Michx.	ERPU
Muhlenbergia porteri Scribn.	MUPO2
Panicum hirticaule Presl	PAHI5
Setaria macrostachya H.B.K.	SEMA5
Sporobolus airoides (Torr.) Torr.	SPAI
Sporobolus contractus Hitchc.	SPCO4
Sporobolus flexuosus (Thurb.) Rydb.	SPFL2
Forbs	
Allionia incarnata L.	ALIN
Amaranthus blitoides S. Wats.	AMGR
Amaranthus retroflexus L.	AMRE
Aphanostephus ramossissimus Dc.	APRA
Aplopappus gracilis (Nutt.) Gray	HAGR5
Aplopappus spinulosus (Pursh) Dc.	HASP2
Asclepias subverticillata (A. Gray) Vail	ASSU2
Aster leucanthemifolius Greene	MALE
Astragalus allochrous A. Gray	ASAL6
Astragalus nuttallinaus Dc.	ASNU4
Bahia absinthifolia Benth.	BAAB
Baileya multiradiata Harv. & Gray	BAMU
Boerhaavia torreyana (S. Wats.) Standl.	BOTO
Cassia bauhinoides Gray	CABA6
Chamaesaracha coronopus (Dunal) Gray	CHCO2
Chenopodium incanum (S. Wats.) Heller	CHIN2
Cirsium ochrocentrum A. Gray	CIOC2
Corispermum nitidum L.	CONI3
Croton corymbulosus Engelm.	CRCO11
Cryptantha circumsissium (H. & A.) Johnst.	CRCI2
Cryptantha crassispepala (T. & G.) Greene	CRCR3
Cucurbita foetidissima HBK.	CUFO
Dalea nana Torr.	DANA
Dithyraea wizlizeni Engelm.	DIWI
Dyssodia papposa (Vent.) Hitchc.	DYPA
Eriogonum abertianum Torr.	ERAB2
Eriogonum annum Nutt.	ERAN4
Eriogonum rotundifolium Benth.	ERRO2
Erigonum trichopes Torr.	ERTR8

APPENDIX I (Cont.)

Euphorbia albomarginata (T. & G.) Small	EUAL4
Euphorbia parryi Engelm.	EUPA6
Evolvulus pilosus Nutt.	EVPI
Franseria acanthicarpa (Hook.) Cov.	FRAC
Gaillardia pinnatifida Torr.	GAPI
Gutierrezia glutinosa (Schauer) Sch.-Bip.	GUGL
Helianthus petiolaris Nutt.	HEPE
Hoffmannseggia densiflora Benth.	HODE
Hoffmannseggia jamesii T. & G.	HOJA
Hymenopappus robustus Greene	HYRO
Kallstroemia hirsutissima Vail	KAHI
Lepidum montanum Nutt.	LEMO2
Lesquerella fendleri (Gray) Wats.	LEFE
Linum australe Heller	LIARA
Melampodium leucanthus T. & G.	MELE2
Mentzelia albicaulis Dougl.	MEAL6
Nama hispidum Gray	NAHI
Oenothera runcinata (Engelm.) Munz	OERU
Palafoxia sphacelata (Nutt.) Cory	PASP
Pectis papposa Harv. & Gray	PEPA2
Perezia nana Gray	PENA
Petalostemum compactum (Spreng.) Swezey	PECO10
Phacelia intermedia Wooton	PHIN2
Plantago purshii R. & S.	PLPAG
Portulaca oleracea L.	POOL
Portulaca pilosa L.	POMU2
Proboscidia louisianica (Miller) Thellung	PRLO
Psilostrophe tagentinae (Nutt.) Greene	PSTA
Salsola kali L.	SAKA
Selinocarpus chenopodioides Gray	SECH
Senecio longilobus Benth.	SELO
Solanum elaeagnifolium Cav.	SOEL
Sphaeralcea coccinea (Pursh) Rydb.	SPCO
Sphaeralcea subhastata Coult.	SPSU
Stephanomeria pauciflora (Torr.) Nutt	STPA4
Talinum angustissimum (Gray) Woot. & Standl.	TAAN
Tidestromia lanuginosa (Nutt.) Standl.	TILA2
Tribulus terrestris L.	TRTE
Zinnia grandiflora Nutt.	ZIGR

Shrubs

Ephedra trifurca Torr.	EPTR
Gutierrezia sarothrae (Pursh) Britt. & Rusby	GUSA
Krameria lanceolata Torr.	KRLA
Opuntia engelmannii Salm-Dyck	OPEN
Prosopis juliflora (Sw.) Dc.	PRJU
Yucca elata Engelm.	YUEL

APPENDIX II

FIELD DATA

Aboveground Biomass

The 1972 Jornada aboveground herbage data are Grassland Biome data set number A2U00E8. They are recorded on Form NREL-01. A sample form and listing follow.

IBP

GRASSLAND BIOME

U.S. INTERNATIONAL BIOLOGICAL PROGRAM

FIELD DATA SHEET – ABOVEGROUND BIOMASS

DATA TYPE	SITE	INITIALS	DATE			TREATMENT	REPLICATE	PLOT SIZE	QUADRAT	CLIP-EST.	GROWTH FM.	GENUS	SPECIES	SUBSPECIES	CATEGORY	WEIGHT ESTIMATE	SACK NO.	DRY WEIGHT	CROWN PLOT SIZE	CROWN WEIGHT
			DAY	MO.	YR.															
1-2	3-4	5-7	8-9	10-11	12-13	14	15	16-19	21-23	25	27	29-30	31-32	34	35	36-40	42-45	47-52	54-57	59-6
01																				

DATA TYPE
- 01 Aboveground Biomass
- 02 Litter
- 03 Belowground Biomass
- 10 Vertebrate - Live Trapping
- 11 Vertebrate - Snap Trapping
- 12 Vertebrate - Collection
- 20 Avian Flush Census
- 21 Avian Road Count
- 22 Avian Road Count Summary
- 23 Avian Collection - Internal
- 24 Avian Collection - External
- 25 Avian Collection - Plumage
- 30 Invertebrate
- 40 Microbiology - Decomposition
- 41 Microbiology - Nitrogen
- 42 Microbiology - Biomass
- 43 Microbiology - Root Decomposition
- 44 Microbiology - Respiration

SITE
- 01 Ale
- 02 Bison
- 03 Bridger
- 04 Cottonwood
- 05 Dickinson
- 06 Hays
- 07 Hopland
- 08 Jornada
- 09 Osage
- 10 Pantex
- 11 Pawnee

TREATMENT
- 1 Ungrazed
- 2 Lightly grazed
- 3 Moderately grazed
- 4 Heavily grazed
- 5 Grazed 1969, ungrazed 1970
- 6 Grazed 1970, ungrazed 1971
- 7
- 8
- 9

CLIP-ESTIMATE
- 1 Harvested
- 2 Harvest and Est.
- 3 Estimated
- 4 Est. for Insect
- 5 Est. for Reference
- 6 Est. for Future Clip

GROWTH FORM
- 1 Perennial grass
- 2 Annual grass
- 3 Sedge, rush, etc.
- 4 Annual forb
- 5 Biennial forb
- 6 Perennial forb
- 7 Half-shrub
- 8 Shrub
- 9 Tree
- 0 Miscellaneous

CATEGORY
- 1 Live
- 2 Old dead
- 3 Recent dead

NREL-01 NATURAL RESOURCE ECOLOGY LABORATORY - COLORADO STATE UNIVERSITY– PHONE (303) 491-5571 - FORT COLLINS, COLORADO 80

+++ EXAMPLE OF DATA +++

```
         1         2         3         4         5         6         7
1234567890123456789012345678901234567890123456789012345678901234567890

1 8JMC17017211  .5 024 2 2 PAHI 53   2.3  001   3.55                    0
1 8JMC17017211  .5 024 2 1 BOER 43   9.0  002  19.83                    0
1 8JMC17017211  .5 024 2 2 BOBA 23    .8  003    .63                    0
1 8JMC17017211  .5 024 2 4 CRCR 31    .4  004    .91                    0
1 8JMC17017211  .5 024 2 4 TILA 23   1.0  005   5.06                    0
1 8JMC17017211  .5 024 2 6 SOEL  3   1.6  006   1.45                    0
1 8JMC17017211  .5 030 2 1 BOER 43   5.0  007  10.93                    0
1 8JMC17017211  .5 030 2 2 BOBA 23    .3  008    .72                    0
1 8JMC17017211  .5 030 2 2 PAHI 53    .3  009   2.24                    0
1 8JMC17017211  .5 030 2 4 TILA 23   1.2  010   7.88                    0
1 8JMC17017211  .5 030 2 4 CRCR 31    .3  011    .42                    0
1 8JMC17017211  .5 102 2 2 BOAR  3   1.8  012   2.16                    0
1 8JMC17017211  .5 102 2 6 ZIGR  3   2.3  013   1.77                    0
1 8JMC17017211  .5 102 2 4 POMU 23    .4  014    .39                    0
1 8JMC17017211  .5 108 2 2 BOAR  3    .5  015    .24                    0
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1 8JMC17017211  .5 108 2 4 TILA 23    .3  017   1.17                    0
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1 8JMC17017211  .5 138 2 2 BOBA 23    .1  021    .32                    0
1 8JMC17017211  .5 138 2 4 POMU 23    .7  022    .89                    0
1 8JMC17017211  .5 138 2 4 PEPA 23    .1  023   1.20                    0
1 8JMC17017211  .5 138 2 4 TILA 23    .2  024    .44                    0
1 8JMC17017211  .5 242 2 1 BOER 43  30.0  025  40.44                    0
1 8JMC17017211  .5 242 2 2 BOAR  3    .2  026    .38                    0
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1 8JMC17017211  .5 314 2 2 BOBA 23    .7  033    .80                    0
1 8JMC17017211  .5 314 2 2 BOBA 23    .7  033    .80                    0
1 8JMC17017211  .5 314 2 2 BOAR  3    .5  034    .53                    0
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1 8JMC17017211  .5 314 2 4 SAKA  3    .8  036   1.53                    0
1 8JMC17017211  .5 314 2 4 CRCR 31    .2  037    .12                    0
1 8JMC17017211  .5 392 2 2 BOBA 23    .8  038   1.86                    0
1 8JMC17017211  .5 392 2 2 BOAR  3    .4  039    .76                    0
1 8JMC17017211  .5 392 2 4 PEPA 23    .1  040    .29                    0
1 8JMC17017211  .5 392 2 4 ACWR 23    .3  041    .43                    0
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1 8JMC17017211  .5 398 2 2 BOBA 23    .3  043    .33                    0
1 8JMC17017211  .5 398 2 2 BOAR  3    .2  044    .14                    0
1 8JMC17017211  .5 398 2 4 PEPA 23    .1  045    .70                    0
1 8JMC17017211  .5 398 2 7 GUSA 22   5.3  046   7.36                    0
1 8JMC17017211  .5 436 2 2 BOAR  3    .4  047   1.15                    0
1 8JMC17017211  .5 436 2 4 TILA 23   1.2  048   6.23                    0
1 8JMC17017211  .5 436 2 4 PEPA 23    .2  049    .86                    0
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1	8JMC17017211	.5	478	2	2	BOAR 3	.3	052	.50	0
1	8JMC17017211	.5	478	2	4	PEPA 23	.2	053	.86	0
1	8JMC17017211	.5	478	2	4	POMU 23	.2	054	.48	0
1	8JMC17017211	.5	478	2	4	CRCR 31	.0	055	.10	0
1	8JMC17017211	.5	538	2	2	BOAR 3	.3	056	.74	0
1	8JMC17017211	.5	538	2	2	BOBA 23	.2	057	.34	0
1	8JMC17017211	.5	538	2	1	TRPU 22	.1	058	.80	0
1	8JMC17017211	.5	538	2	4	PEPA 23	.1	059	.66	0
1	8JMC17017211	.5	538	2	4	KAHI 3	.5	060	.72	0
1	8JMC17017211	.5	538	2	4	CRCR 31	.1	061	.54	0
1	8JMC17017211	.5	538	2	7	GUSA 21	1.0	062	.92	0
1	8JMC17017211	.5	562	2	2	BOAR 3	.8	063	3.18	0
1	8JMC17017211	.5	562	2	2	BOBA 23	.3	064	.07	0
1	8JMC17017211	.5	562	2	4	PEPA 23	.3	065	1.25	0
1	8JMC17017211	.5	562	2	4	BOTO 3	.1	066	.04	0
1	8JMC17017211	.5	562	2	4	TILA 23	.2	067	.28	0
1	8JMC17017211	.5	562	2	4	CRCR 31	.1	068	.41	0
1	8JMC17017211	.5	586	2	1	SPFL 23	2.3	069	3.39	0
1	8JMC17017211	.5	586	2	2	ARAD 3	.8	070	.93	0
1	8JMC17017211	.5	586	2	2	BOAR 3	.6	071	2.00	0
1	8JMC17017211	.5	586	2	4	BOTO 3	.2	072	.87	0
1	8JMC17017211	.5	586	2	4	TILA 23	.2	073	1.69	0
1	8JMC17017211	.5	586	2	4	SAKA 3	3.5	074	4.67	0
1	8JMC17017211	.5	586	2	6	CRCO113	2.0	075	.39	0
1	8JMC17017211	.5	586	2	7	GUSA 22	45.0	076	17.45	0
1	8JMC17017211	.5	618	2	1	BOER 43	6.0	077	8.80	0
1	8JMC17017211	.5	618	2	2	BOAR 3	.2	078	.58	0
1	8JMC17017211	.5	618	2	2	BOBA 23	.2	079	.16	0
1	8JMC17017211	.5	618	2	6	CRCO113	3.8	080	2.72	0
1	8JMC17017211	.5	618	2	4	KAHI 3	.6	081	4.49	0
1	8JMC17017211	.5	618	2	4	TILA 23	.2	082	.37	0
1	8JMC17017211	.5	618	2	4	CRCR 31	.1	083	.25	0
1	8JMC17017211	.5	636	2	1	SPFL 23	22.0	084	14.80	0
1	8JMC17017211	.5	636	2	1	BOER 43	27.0	085	23.95	0
1	8JMC17017211	.5	636	2	6	CRCO113	2.0	086	.91	0
1	8JMC17017211	.5	636	2	4	TILA 23	.2	087	.10	0
1	8JMC17017211	.5	636	2	4	OERU 1	.1	088	.09	0
1	8JMC17017211	.5	654	2	1	SPFL 23	1.5	089	3.33	0
1	8JMC17017211	.5	654	2	1	BOER 43	55.0	090	58.26	0
1	8JMC17017211	.5	654	2	6	CRCO113	1.5	091	1.36	0
1	8JMC17017211	.5	654	2	4	TILA 23	.3	092	.97	0
1	8JMC17017211	.5	654	2	4	PEPA 23	.1	093	.11	0
1	8JMC17017211	.5	684	2	1	MUPO 23	22.0	094	40.22	0
1	8JMC17017211	.5	684	2	2	PAHI 53	.3	095	.14	0
1	8JMC17017211	.5	684	2	2	BOAR 3	.2	096	.43	0
1	8JMC17017211	.5	684	2	4	TILA 23	.2	097	.06	0
1	8JMC17017211	.5	684	2	4	CRCR 31	.2	098	.66	0
1	8JMC17017211	.5	684	2	7	YUEL 4	5.0	099	9.62	0
1	8JMC17017211	.5	684	2	7	YUEL 3	2.3	100	11.56	0
1	8JMC17017211	.5	738	2	1	SPFL 22	2.2	101	3.00	0
1	8JMC17017211	.5	738	2	1	BOER 43	1.8	102	1.51	0
1	8JMC17017211	.5	738	2	2	BOBA 23	1.0	103	.17	0
1	8JMC17017211	.5	738	2	2	BOAR 3	.3	104	.90	0
1	8JMC17017211	.5	738	2	4	TILA 23	.0	105	.06	0
1	8JMC17017212	.5	006	2	2	BOBA 23	.1	106	.29	0
1	8JMC17017212	.5	006	2	2	PAHI 53	.3	107	.28	0
1	8JMC17017212	.5	006	2	6	CRCO113	4.2	108	10.89	0
1	8JMC17017212	.5	006	2	4	POMU 23	.6	109	.79	0

1	8JMC17017212	.5	006	2	4	CRCR	31	.1	110	.14	0
1	8JMC17017212	.5	030	2	1	SPFL	23	3.5	111	2.75	0
1	8JMC17017212	.5	030	2	2	BOAR	3	.3	112	.98	0
1	8JMC17017212	.5	030	2	2	PAHI	53	.2	113	.19	0
1	8JMC17017212	.5	030	2	4	PEPA	23	.1	114	.66	0
1	8JMC17017212	.5	030	2	4	TILA	23	.3	115	.98	0
1	8JMC17017212	.5	090	2	2	PAHI	53	.8	116	1.00	0
1	8JMC17017212	.5	090	2	2	BOBA	23	.2	117	.28	0
1	8JMC17017212	.5	090	2	2	BOAR	3	.3	118	.90	0
1	8JMC17017212	.5	090	2	4	TILA	23	.1	119	.02	0
1	8JMC17017212	.5	102	2	2	BOBA	23	.2	120	.10	0
1	8JMC17017212	.5	102	2	2	PAHI	53	1.2	121	3.01	0
1	8JMC17017212	.5	102	2	4	KAHI	3	.6	122	1.02	0
1	8JMC17017212	.5	120	2	1	BOER	43	.6	123	.65	0
1	8JMC17017212	.5	120	2	2	PAHI	53	3.0	124	.64	0
1	8JMC17017212	.5	120	2	4	KAHI	3	.8	125	.66	0
1	8JMC17017212	.5	120	2	4	PEPA	23	.2	126	.09	0
1	8JMC18017212	.5	266	2	1	BOER	43	22.0	127	17.51	0
1	8JMC18017212	.5	266	2	2	PAHI	53	.7	128	.85	0
1	8JMC18017212	.5	266	2	2	ARAD	3	.2	129	.38	0
1	8JMC18017212	.5	266	2	2	BOAR	3	.5	130	.59	0
1	8JMC18017212	.5	266	2	4	TILA	23	.7	131	3.73	0
1	8JMC18017212	.5	266	2	4	SAKA	3	.8	132	.93	0
1	8JMC18017212	.5	266	2	4	CRCR	31	.3	133	2.58	0
1	8JMC18017212	.5	356	2	1	BOER	43	15.0	134	26.17	0
1	8JMC18017212	.5	356	2	1	SPFL	23	18.0	135	11.43	0
1	8JMC18017212	.5	356	2	2	BOBA	23	.3	136	.03	0
1	8JMC18017212	.5	356	2	6	CRCO	113	2.0	137	1.34	0
1	8JMC18017212	.5	356	2	4	TILA	23	.2	138	.59	0
1	8JMC18017212	.5	356	2	7	GUSA	22	8.8	139	9.43	0
1	8JMC18017212	.5	368	2	1	BOER	43	8.0	140	8.49	0
1	8JMC18017212	.5	368	2	2	BOAR	3	.6	141	1.31	0
1	8JMC18017212	.5	368	2	4	TILA	23	.5	142	2.79	0
1	8JMC18017212	.5	368	2	6	CRCO	113	.8	143	.61	0
1	8JMC18017212	.5	368	2	4	CRCR	31	.1	144	.06	0
1	8JMC18017212	.5	374	2	1	BOER	43	38.0	145	62.52	0
1	8JMC18017212	.5	374	2	2	BOAR	3	.2	146	.42	0
1	8JMC18017212	.5	374	2	6	CRCO	113	2.0	147	1.67	0
1	8JMC18017212	.5	374	2	4	TILA	23	.5	148	1.94	0
1	8JMC18017212	.5	380	2	1	SPFL	23	6.0	149	2.25	0
1	8JMC18017212	.5	380	2	2	BOAR	3	.3	150	2.03	0
1	8JMC18017212	.5	380	2	2	ARAD	3	.1	151	.70	0
1	8JMC18017212	.5	380	2	6	CRCO	113	3.0	152	4.11	0
1	8JMC18017212	.5	380	2	4	TILA	23	.4	153	2.28	0
1	8JMC18017212	.5	448	2	2	BOAR	3	1.0	154	3.11	0
1	8JMC18017212	.5	448	2	4	PEPA	23	.3	155	.34	0
1	8JMC18017212	.5	448	2	4	SAKA	3	1.6	156	3.05	0
1	8JMC18017212	.5	448	2	4	KAHI	3	.7	157	1.10	0
1	8JMC18017212	.5	460	2	2	BOAR	3	1.2	158	3.08	0
1	8JMC18017212	.5	460	2	4	TILA	23	.2	159	.58	0
1	8JMC18017212	.5	460	2	4	SAKA	3	.8	160	1.37	0
1	8JMC18017212	.5	460	2	4	PEPA	23	.1	161	.71	0
1	8JMC18017212	.5	460	2	4	KAHI	3	.5	162	.55	0
1	8JMC18017212	.5	508	2	2	BOAR	3	1.8	163	5.33	0
1	8JMC18017212	.5	508	2	2	BOBA	23	.3	164	.70	0
1	8JMC18017212	.5	508	2	4	KAHI	3	.8	165	1.00	0
1	8JMC18017212	.5	508	2	4	TILA	23	.5	166	.56	0
1	8JMC18017212	.5	508	2	4	HOTO	3	.3	167	.21	0
1	8JMC18017212	.5	538	2	2	BOAR	3	.7	168	1.67	0
1	8JMC18017212	.5	538	2	2	PAHI	53	.2	169	.47	0

1	8JMC18017212	.5	538	2	2	BOBA	23	.1	170	.16	0
1	8JMC18017212	.5	538	2	4	SAKA	3	.9	171	2.14	0
1	8JMC18017212	.5	538	2	6	CRCO	113	2.3	172	5.27	0
1	8JMC18017212	.5	538	2	6	EUAL	43	.2	173	.30	0
1	8JMC18017212	.5	580	2	2	BOAR	3	.3	174	.50	0
1	8JMC18017212	.5	580	2	2	BOBA	23	.1	175	.09	0
1	8JMC18017212	.5	580	2	4	PEPA	23	.2	176	.84	0
1	8JMC18017212	.5	580	2	4	TILA	23	.4	177	4.10	0
1	8JMC18017212	.5	660	2	1	BOER	43	1.5	178	.81	0
1	8JMC18017212	.5	660	2	2	BOBA	23	1.2	179	1.89	0
1	8JMC18017212	.5	660	2	2	BOAR	3	.6	180	1.51	0
1	8JMC18017212	.5	660	2	4	CRCR	31	.1	181	.18	0
1	8JMC18017212	.5	696	2	1	BOER	43	23.0	182	27.93	0
1	8JMC18017212	.5	696	2	2	BOBA	23	.8	183	1.94	0
1	8JMC18017212	.5	696	2	4	TILA	23	7.3	184	20.87	0
1	8JMC18017212	.5	696	2	6	CRCO	113	4.2	185	6.12	0
1	8JMC18017212	.5	756	2	1	BOER	43	20.0	186	20.99	0
1	8JMC18017212	.5	756	2	6	CRCO	113	6.4	187	8.79	0
1	8JMC18017212	.5	756	2	4	TILA	23	.3	188	.91	0
1	8JMC18017212	.5	756	2	4	PEPA	23	.1	189	.15	0
1	8JMC18017212	.5	768	2	1	SPFL	23	1.2	190	2.54	0
1	8JMC18017212	.5	768	2	1	BOER	43	1.0	191	1.06	0
1	8JMC18017212	.5	768	2	2	BOBA	23	.2	192	.20	0
1	8JMC18017212	.5	768	2	2	BOAR	3	.2	193	.38	0
1	8JMC18017212	.5	768	2	6	CRCO	113	3.5	194	5.19	0
1	8JMC18017212	.5	768	2	4	TILA	23	2.4	195	4.61	0
1	8JMC18017212	.5	792	2	1	BOER	43	35.0	196	40.17	0
1	8JMC18017212	.5	792	2	2	BOBA	23	1.2	197	1.87	0
1	8JMC18017212	.5	792	2	2	ARAD	3	.2	198	.12	0
1	8JMC18017212	.5	792	2	2	PAHI	53	.6	199	.14	0
1	8JMC18017212	.5	792	2	4	TILA	23	.4	260	.64	0
1	8JMC18017251	.5	006	2	2	BOAR	3	.2	201	.58	0
1	8JMC18017251	.5	006	2	6	CRCO	113	.4	202	.30	0
1	8JMC18017251	.5	006	2	4	SAKA	3	4.0	203	4.41	0
1	8JMC18017251	.5	006	2	4	CRCR	31	.2	204	.35	0
1	8JMC18017251	.5	006	2	7	GUSA	22	11.3	205	18.43	0
1	8JMC18017251	.5	150	2	1	ARLO	33	4.0	206	4.08	0
1	8JMC18017251	.5	150	2	2	ARAD	3	.2	207	2.29	0
1	8JMC18017251	.5	150	2	2	BOBA	23	.2	208	.12	0
1	8JMC18017251	.5	150	2	2	BOAR	3	.1	209	.34	0
1	8JMC18017251	.5	150	2	4	SAKA	3	1.4	210	2.70	0
1	8JMC18017251	.5	150	2	4	PEPA	23	.2	211	.74	0
1	8JMC18017251	.5	150	2	4	CRCR	31	.2	212	.66	0
1	8JMC18017251	.5	150	2	4	ACWR	23	.5	213	.39	0
1	8JMC18017251	.5	156	2	2	PAHI	53	.8	214	1.35	0
1	8JMC18017251	.5	156	2	1	TRPU	22	.1	215	.22	0
1	8JMC18017251	.5	156	2	4	KAHI	3	.3	216	.71	0
1	8JMC18017251	.5	156	2	4	SAKA	3	1.5	217	2.18	0
1	8JMC18017251	.5	156	2	7	GUSA	23	16.3	218	24.97	0
1	8JMC18017251	.5	180	2	1	SPCO	3	5.0	219	4.70	0
1	8JMC18017251	.5	180	2	2	PAHI	53	1.2	220	1.04	0
1	8JMC18017251	.5	180	2	4	PEPA	23	.8	221	1.56	0
1	8JMC18017251	.5	180	2	4	KAHI	3	.3	222	3.16	0
1	8JMC18017251	.5	186	2	1	ARLO	33	4.5	223	6.71	0
1	8JMC18017251	.5	186	2	2	PAHI	53	.8	224	1.49	0
1	8JMC18017251	.5	186	2	2	BOAR	3	.5	225	1.83	0
1	8JMC18017251	.5	186	2	4	PEPA	23	.2	226	.30	0
1	8JMC18017251	.5	186	2	6	CRCO	113	.8	227	.76	0
1	8JMC18017251	.5	266	2	2	BOBA	23	.1	228	.32	0
1	8JMC18017251	.5	266	2	4	PEPA	23	.2	229	1.84	0

Belowground Biomass

The belowground biomass data from the Jornada Site were collected on Form NREL-03. These data have the Grassland Biome designation of A2U0028. Examples of the data form and data follow.

IBP

GRASSLAND BIOME

U.S. INTERNATIONAL BIOLOGICAL PROGRAM

FIELD DATA SHEET - BELOWGROUND BIOMASS

DATA TYPE	SITE	INITIALS	DATE			TREATMENT	REPLICATE	PLOT SIZE	QUADRAT	CORE DIAM.	HORIZON	TOP DEPTH	BOTTOM DEP.	LENGTH	WASH WT.	DRY WT.	ASH WT.	CROWN DRY WT.
			Day	Mo	Yr													
1-2	3-4	5-7	8-9	10-11	12-13	14	15	16-19	21-23	25-27	29	31-33	35-37	39-41	43-47	49-54	56-61	63-68

DATA TYPE

01 Aboveground Biomass
02 Litter
03 Belowground Biomass
10 Vertebrate - Live Trapping
11 Vertebrate - Snap Trapping
12 Vertebrate - Collection
20 Avian Flush Census
21 Avian Road Count
22 Avian Road Count Summary
23 Avian Collection - Internal
24 Avian Collection - External
25 Avian Collection - Plumage
30 Invertebrate
40 Microbiology - Decomposition
41 Microbiology - Nitrogen
42 Microbiology - Biomass
43 Microbiology - Root Decomposition
44 Microbiology - Respiration

SITE

01 Ale
02 Bison
03 Bridger
04 Cottonwood
05 Dickinson
06 Hays
07 Hopland
08 Jornada
09 Osage
10 Pantex
11 Pawnee

TREATMENT

1 Ungrazed
2 Lightly grazed
3 Moderately grazed
4 Heavily grazed
5 Grazed 1969, ungrazed 1970
6
7
8
9

HORIZON

1 AO
2 A
3 B
4 C

EXAMPLE OF DATA

```
         1         2         3         4         5         6
123456789012345678901234567890123456789012345678901234567890123456789

0308PWV29037211  .5 030 7.6 5  00  10  10  3.0   .58   .55
0308PWV29037211  .5 030 7.6 6  10  20  10  3.0   .81   .68
0308PWV29037211  .5 030 7.6 6  20  30  10  3.0   .65   .62
0308PWV29037211  .5 138 7.6 5  00  10  10  3.0   .19   .04
0308PWV29037211  .5 138 7.6 6  10  20  10  3.0  2.20  2.15
0308PWV29037211  .5 138 7.6 6  20  30  10  3.0  1.12  1.10
0308PWV29037211  .5 242 7.6 5  00  10  10  3.0  1.31  1.13
0308PWV29037211  .5 242 7.6 6  10  20  10  3.0  1.97  1.86
0308PWV29037211  .5 242 7.6 6  20  30  10  3.0  1.30  1.22
0308PWV29037211  .5 314 7.6 5  00  10  10  3.0   .45   .25
0308PWV29037211  .5 314 7.6 6  10  20  10  3.0   .22   .19
0308PWV29037211  .5 314 7.6 6  20  30  10  3.0  1.21  1.15
0308PWV29037211  .5 398 7.6 5  00  10  10  3.0   .10   .09
0308PWV29037211  .5 398 7.6 6  10  20  10  3.0   .10   .06
0308PWV29037211  .5 398 7.6 6  20  30  10  3.0   .05   .03
0308PWV29037211  .5 436 7.6 5  00  10  10  3.0  2.67  1.75
0308PWV29037211  .5 436 7.6 6  10  20  10  3.0   .43   .28
0308PWV29037211  .5 436 7.6 6  20  30  10  3.0   .35   .25
0308PWV29037211  .5 538 7.6 5  00  10  10  3.0   .41   .32
0308PWV29037211  .5 538 7.6 6  10  20  10  3.0   .32   .21
0308PWV29037211  .5 538 7.6 6  20  30  10  3.0   .12   .08
0308PWV29037211  .5 596 7.6 5  00  10  10  3.0  1.35  1.03
0308PWV29037211  .5 596 7.6 6  10  20  10  3.0   .41   .26
0308PWV29037211  .5 596 7.6 6  20  30  10  3.0   .24   .12
0308PWV29037211  .5 654 7.6 5  00  10  10  3.0   .39   .31
0308PWV29037211  .5 654 7.6 6  10  20  10  3.0   .20   .12
0308PWV29037211  .5 654 7.6 6  20  30  10  3.0   .11   .10
0308PWV29037211  .5 684 7.6 5  00  10  10  3.0   .49   .31
0308PWV29037211  .5 684 7.6 6  10  20  10  3.0   .17   .11
0308PWV29037211  .5 684 7.6 6  20  30  10  3.0   .08   .05
0308PWV29037212  .5 006 7.6 5  00  10  10  3.0  1.20   .85
0308PWV29037212  .5 006 7.6 6  10  20  10  3.0   .45   .31
0308PWV29037212  .5 006 7.6 6  20  30  10  3.0   .27   .16
0308PWV29037212  .5 102 7.6 5  00  10  10  3.0  1.46   .06
0308PWV29037212  .5 102 7.6 6  10  20  10  3.0   .28   .18
0308PWV29037212  .5 102 7.6 6  20  30  10  3.0   .20   .08
0308PWV29037212  .5 356 7.6 5  00  10  10  3.0   .21   .10
0308PWV29037212  .5 356 7.6 6  10  20  10  3.0   .11   .09
0308PWV29037212  .5 356 7.6 6  20  30  10  3.0   .10   .05
0308PWV29037212  .5 374 7.6 5  00  10  10  3.0   .47   .33
0308PWV29037212  .5 374 7.6 6  10  20  10  3.0   .58   .41
0308PWV29037212  .5 374 7.6 6  20  30  10  3.0   .13   .12
0308PWV29037212  .5 380 7.6 5  00  10  10  3.0   .83   .61
0308PWV29037212  .5 380 7.6 6  10  20  10  3.0   .32   .24
0308PWV29037212  .5 380 7.6 6  20  30  10  3.0   .20   .13
0308PWV29037212  .5 460 7.6 5  00  10  10  3.0   .27   .16
0308PWV29037212  .5 460 7.6 6  10  20  10  3.0   .31   .21
0308PWV29037212  .5 460 7.6 6  20  30  10  3.0   .16   .03
0308PWV29037212  .5 508 7.6 5  00  10  10  3.0   .93   .55
0308PWV29037212  .5 508 7.6 6  10  20  10  3.0   .26   .14
0308PWV29037212  .5 508 7.6 6  20  30  10  3.0   .30   .16
0308PWV29037212  .5 580 7.6 5  00  10  10  3.0   .99   .77
```

0308PWV29037212	.5	580	7.6	6	10	20	10	3.0	.13	.05
0308PWV29037212	.5	580	7.6	6	20	30	10	3.0	.03	.02
0308PWV29037212	.5	696	7.6	5	00	10	10	3.0	.45	.32
0308PWV29037212	.5	696	7.6	6	10	20	10	3.0	.28	.17
0308PWV29037212	.5	696	7.6	6	20	30	10	3.0	.20	.09
0308PWV29037212	.5	792	7.6	5	00	10	10	3.0	.42	.27
0308PWV29037212	.5	792	7.6	6	10	20	10	3.0	.25	.17
0308PWV29037212	.5	792	7.6	6	20	30	10	3.0	.05	.03
0308PWV29037261	.5	150	7.6	5	00	10	10	3.0	.38	.26
0308PWV29037261	.5	150	7.6	6	10	20	10	3.0	11.89	2.42
0308PWV29037261	.5	150	7.6	6	20	30	10	3.0	1.35	1.02
0308PWV29037261	.5	156	7.6	5	00	10	10	3.0	.33	.21
0308PWV29037261	.5	156	7.6	6	10	20	10	3.0	.37	.22
0308PWV29037261	.5	156	7.6	6	20	30	10	3.0	.23	.14
0308PWV29037261	.5	180	7.6	5	00	10	10	3.0	.24	.14
0308PWV29037261	.5	180	7.6	6	10	20	10	3.0	.50	.37
0308PWV29037261	.5	180	7.6	6	20	30	10	3.0	.16	.10
0308PWV29037261	.5	290	7.6	5	00	10	10	3.0	.15	.07
0308PWV29037261	.5	290	7.6	6	10	20	10	3.0	.10	.07
0308PWV29037261	.5	290	7.6	6	20	30	10	3.0	.15	.10
0308PWV29037261	.5	392	7.6	5	00	10	10	3.0	2.05	1.27
0308PWV29037261	.5	392	7.6	6	10	20	10	3.0	.82	.42
0308PWV29037261	.5	392	7.6	6	20	30	10	3.0	.25	.10
0308PWV29037261	.5	424	7.6	5	00	10	10	3.0	3.52	2.09
0308PWV29037261	.5	424	7.6	6	10	20	10	3.0	.26	.17
0308PWV29037261	.5	424	7.6	6	20	30	10	3.0	.86	.69
0308PWV29037261	.5	520	7.6	5	00	10	10	3.0	.22	.15
0308PWV29037261	.5	520	7.6	6	10	20	10	3.0	.34	.26
0308PWV29037261	.5	520	7.6	6	20	30	10	3.0	.11	.02
0308PWV29037261	.5	550	7.6	5	00	10	10	3.0	.41	.23
0308PWV29037261	.5	550	7.6	6	10	20	10	3.0	.34	.24
0308PWV29037261	.5	550	7.6	6	20	30	10	3.0	.31	.21
0308PWV29037261	.5	684	7.6	5	00	10	10	3.0	.26	.13
0308PWV29037261	.5	684	7.6	6	10	20	10	3.0	.36	.25
0308PWV29037261	.5	684	7.6	6	20	30	10	3.0	.20	.12
0308PWV29037261	.5	738	7.6	5	00	10	10	3.0	.57	.38
0308PWV29037261	.5	738	7.6	6	10	20	10	3.0	.15	.07
0308PWV29037261	.5	738	7.6	6	20	30	10	3.0	.15	.08
0308PWV29037262	.5	102	7.6	5	00	10	10	3.0	.20	.09
0308PWV29037262	.5	102	7.6	6	10	20	10	3.0	.15	.10
0308PWV29037262	.5	102	7.6	6	20	30	10	3.0	.07	.02
0308PWV29037262	.5	126	7.6	5	00	10	10	3.0	1.53	.66
0308PWV29037262	.5	126	7.6	6	10	20	10	3.0	.65	.45
0308PWV29037262	.5	126	7.6	6	20	30	10	3.0	.67	.36
0308PWV29037262	.5	266	7.6	5	00	10	10	3.0	.53	.28
0308PWV29037262	.5	266	7.6	6	10	20	10	3.0	.28	.18
0308PWV29037262	.5	266	7.6	6	20	30	10	3.0	.39	.28
0308PWV29037262	.5	350	7.6	5	00	10	10	3.0	3.32	2.91
0308PWV29037262	.5	350	7.6	6	10	20	10	3.0	.23	.13
0308PWV29037262	.5	350	7.6	6	20	30	10	3.0	1.67	1.60
0308PWV29037262	.5	392	7.6	5	00	10	10	3.0	.75	.40
0308PWV29037262	.5	392	7.6	6	10	20	10	3.0	.44	.28
0308PWV29037262	.5	392	7.6	6	20	30	10	3.0	.26	.15
0308PWV29037262	.5	406	7.6	5	00	10	10	3.0	.23	.15
0308PWV29037262	.5	406	7.6	6	10	20	10	3.0	.57	.46
0308PWV29037262	.5	406	7.6	6	20	30	10	3.0	.92	.74
0308PWV29037262	.5	490	7.6	5	00	10	10	3.0	.07	.03
0308PWV29037262	.5	490	7.6	6	10	20	10	3.0	.24	.17
0308PWV29037262	.5	490	7.6	6	20	30	10	3.0	.18	.06

0308PWV29037262	.5	612	7.6	5	00	10	10	3.0	.18	.09
0308PWV29037262	.5	612	7.6	6	10	20	10	3.0	.21	.14
0308PWV29037262	.5	612	7.6	6	20	30	10	3.0	.17	.14
0308PWV29037262	.5	648	7.6	5	00	10	10	3.0	2.87	2.65
0308PWV29037262	.5	648	7.6	6	10	20	10	3.0	.17	.05
0308PWV29037262	.5	648	7.6	6	20	30	10	3.0	.16	.07
0308PWV29037262	.5	690	7.6	5	00	10	10	3.0	.38	.24
0308PWV29037262	.5	690	7.6	6	10	20	10	3.0	.13	.05
0308PWV29037262	.5	690	7.6	6	20	30	10	3.0	.06	.01

Litter

The litter data were collected at the Jornada Site on form NREL-02. These data have the Grassland Biome designation of A2U0018. Examples of the data form and data follow.

IBP

GRASSLAND BIOME

U.S. INTERNATIONAL BIOLOGICAL PROGRAM

FIELD DATA-SHEET - LITTER

DATA TYPE	SITE	INITIALS	DATE			TREATMENT	REPLICATE	PLOT SIZE	QUADRAT	TYPE	SACK NO.	DRY WT.	SACK WT.	ASH WT.	PREVIOUS DATE		
			Day	Mo	Yr										Day	Mo	Yr

DATA TYPE

01 Aboveground Biomass
02 Litter
03 Belowground Biomass
10 Vertebrate - Live Trapping
11 Vertebrate - Snap Trapping
12 Vertebrate - Collection
20 Avian Flush Census
21 Avian Road Count
22 Avian Road Count Summary
23 Avian Collection - Internal
24 Avian Collection - External
25 Avian Collection - Plumage
30 Invertebrate
40 Microbiology - Decomposition
41 Microbiology - Nitrogen
42 Microbiology - Biomass
43 Microbiology - Root Decomposition
44 Microbiology - Respiration

SITE

01 Ale
02 Bison
03 Bridger
04 Cottonwood
05 Dickinson
06 Hays
07 Hopland
08 Jornada
09 Osage
10 Pantex
11 Pawnee

TREATMENT

1 Ungrazed
2 Lightly grazed
3 Moderately grazed
4 Heavily grazed
5 Grazed 1969, ungrazed 1970
6
7
8
9

TYPE

1 Quadrat, total
2 Quadrat, part
3 Cleared plot
4 Litter bag

EXAMPLE OF DATA

```
         1         2         3         4         5         6
12345678901234567890123456789012345678901234567890123456789012345678
0208JMC170172110.50 024 1      21.6321.63  06.26
0208JMC170172110.50 030 1      12.8812.88  02.14
0208JMC170172110.50 102 1      02.5102.51  00.80
0208JMC170172110.50 108 1      05.2205.22  00.80
0208JMC170172110.50 138 1      02.6602.66  00.35
0208JMC170172110.50 242 1      06.5406.54  01.61
0208JMC170172110.50 302 1      12.6412.64  05.02
0208JMC170172110.50 314 1      13.2913.29  02.90
0208JMC170172110.50 392 1      10.4910.49  01.54
0208JMC170172110.50 398 1      13.3613.36  01.20
0208JMC170172110.50 436 1      09.5509.55  03.26
0208JMC170172110.50 478 1      01.9801.98  00.30
0208JMC170172110.50 538 1      01.8701.87  00.53
0208JMC170172110.50 562 1      05.9905.99  02.26
0208JMC170172110.50 586 1      41.7541.75  13.14
0208JMC170172110.50 618 1      09.6709.67  02.72
0208JMC170172110.50 636 1      12.2412.24  01.77
0208JMC170172110.50 654 1      13.5013.50  04.21
0208JMC170172110.50 684 1      24.4924.49  05.40
0208JMC170172110.50 738 1      21.6721.67  10.06
0208JMC170172120.50 006 1      04.7804.78  00.83
0208JMC170172120.50 030 1      12.7412.74  03.32
0208JMC170172120.50 090 1      02.0502.05  00.61
0208JMC170172120.50 102 1      11.2511.25  02.01
0208JMC170172120.50 120 1      04.3704.37  00.77
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0208JMC170172120.50 356 1      15.0315.03  03.08
0208JMC170172120.50 368 1      07.8207.82  02.19
0208JMC170172120.50 374 1      17.4217.42  04.60
0208JMC170172120.50 380 1      07.9907.99  02.58
0208JMC170172120.50 448 1      13.3113.31  03.53
0208JMC170172120.50 460 1      07.0007.00  00.79
0208JMC170172120.50 508 1      04.7104.71  00.96
0208JMC170172120.50 538 1      13.2813.28  02.03
0208JMC170172120.50 580 1      05.0905.09  02.06
0208JMC170172120.50 660 1      01.9301.93  00.56
0208JMC170172120.50 696 1      60.5760.57  19.78
0208JMC170172120.50 756 1      18.9918.99  05.28
0208JMC170172120.50 768 1      10.9710.97  02.14
0208JMC170172120.50 792 1      10.2510.25  02.38
0208JMC180172610.50 006 1      23.0623.06  01.45
0208JMC180172610.50 150 1      46.5346.53  14.01
0208JMC180172610.50 156 1      15.7515.75  02.89
0208JMC180172610.50 180 1      10.5210.52  00.88
0208JMC180172610.50 186 1      05.2605.26  01.44
0208JMC180172610.50 266 1      02.7902.79  00.33
0208JMC180172610.50 272 1      29.1629.16  02.83
0208JMC180172610.50 290 1      06.1906.19  00.79
0208JMC180172610.50 320 1      16.4316.43  06.62
0208JMC180172610.50 392 1      25.4125.41  01.70
0208JMC180172610.50 424 1      07.0107.01  01.53
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0208JMC180172610.50	430	1	07.0407.04	01.73
0208JMC180172610.50	520	1	02.3002.30	01.43
0208JMC180172610.50	544	1	18.4318.43	03.06
0208JMC180172610.50	550	1	03.6803.68	00.95
0208JMC180172610.50	666	1	05.2205.22	00.67
0208JMC180172610.50	684	1	18.4118.41	02.03
0208JMC180172610.50	714	1	03.1003.10	00.52
0208JMC180172610.50	738	1	09.0409.04	00.42
0208JMC180172610.50	750	1	07.0307.03	00.78
0208JMC200172620.50	084	1	09.9809.98	01.05
0208JMC200172620.50	090	1	02.4402.44	00.18
0208JMC200172620.50	102	1	15.1015.10	01.73
0208JMC200172620.50	126	1	01.8401.84	00.28
0208JMC200172620.50	150	1	04.5004.50	00.23
0208JMC200172620.50	218	1	05.2405.24	00.44
0208JMC200172620.50	266	1	01.7901.79	00.40
0208JMC200172620.50	344	1	09.8509.85	03.82
0208JMC200172620.50	350	1	09.9009.90	02.81
0208JMC200172620.50	392	1	03.4803.48	00.90
0208JMC200172620.50	406	1	16.3816.38	04.32
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0208JMC200172620.50	490	1	04.3604.36	00.24
0208JMC200172620.50	508	1	01.8701.87	00.56
0208JMC200172620.50	562	1	03.1703.17	00.54
0208JMC200172620.50	612	1	02.0802.08	00.39
0208JMC200172620.50	636	1	01.9301.93	00.47
0208JMC200172620.50	648	1	02.5302.53	00.64
0208JMC200172620.50	690	1	06.8306.83	00.73
0208JMC200172620.50	744	1	09.4009.40	01.98