Technical Report No. 196

HYDROLOGIC DATA AT PAWNEE SITE, 1971

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ABSTRACT

This paper presents the hydrologic data collected during the 1971 calendar year as part of the Hydrologic Process Studies of the Grassland Biome Intensive Site Studies, IBP.

The year 1971 can be characterized as a dry year on the Pawnee Site. Winter precipitation was less than normal, resulting in poor soil water recharge. Precipitation in April was above normal, helping to offset the dry winter. However, rainfall during June, July, and August was well below normal (27.5 mm vs. 646 mm) so that soil water was depleted to the driest level yet measured. Soil water potentials in the surface soils (0-60 cm) were below -60 bars by the end of July.

INTRODUCTION

This report presents the hydrologic data collected during the 1971 calendar year as part of the Hydrologic Process Studies of the Grassland Biome Intensive Site Studies, IBP. The data reported are those which are collected on a routine basis in support of the hydrologic process studies and other studies and do not include results of individual field investigations. These are reported in other separate reports.

METHODS

Data collected during 1971 includes precipitation runoff, soil water content from the microwatersheds and soil water transects, and basic meteorological measurements. The data reported are primarily from the field recording instruments and field measurements with some data reported from the hydrologic data system. Instrumentation types and measurements have been described in more detail in Technical Reports 5, 6, 75, and 115 by Smith and Striffler (1969), Galbraith (1969), Striffler (1971), and Van Haveren and Galbraith (1971), respectively.

Precipitation

Precipitation was measured in a network of five recording rain gauges located at microwatersheds 2, 5, 6, 7, and 8. A sixth gauge was added at MWS 1 at the end of June. Gauges were operated at an 8-day rotation (approximately 1.5 mm/hr) during the winter and early spring months, and at a 6-hour rotation (approximately 12 mm/hr) during the summer months. On June 15 all gauges were modified to increase the resolution of the instruments so that

small rainfall events could be read more accurately. This modification involved changing the main spring and traverse mechanism so that the gauge reads 60 mm full scale instead of 150 mm full scale. As a result, precipitation data is more accurate for the remainder of the year. Recording gauge data are presented in Appendix A.

Runoff

Runoff from the microwatersheds was measured during the year using Fischer-Porter A/D punched tape recorders with solid state electronic timers. Recorders were triggered to the water level float tape so that a .01 foot rise in water level would start the mechanism. When activated, recorders would punch stage levels at 30-second intervals.

A similar recorder was operated continuously during the summer on Lynn Lake although no water accumulated in the lake.

Soil Water Contents

Soil water contents were measured on the microwatersheds and soil water transects using the procedures discussed by Galbraith (1969) and Van Haveren and Galbraith (1971). Soil water contents for the microwatersheds are summarized in Appendix B. Soil water contents for the soil water transects are summarized in Appendix C. More detailed data for specific soil depth or positions on a transect or microwatershed are available from the data bank.

Soil Water Tension and Soil Temperature

A few periods of soil water tension and soil temperature were recorded on the hydrologic data system. Measurements include soil

water tension (Matric potential) at five depths in the soil (2, 10, 20, 40, and 80 cm) using Coleman fiberglass resistance units, and soil temperature using thermisters at the same depths. Unfortunately, data are not continuous. However, hourly values of moisture and temperature are available for most days between April 30 and May 24.

Climatic Stations

Observations of the climatic station located in the lysimeter exclosure have been taken daily during the year. Observations include maximum and minimum temperatures, relative humidity, precipitation, pan evaporation, and daily wind travel over the evaporation pan, and soil maximum and minimum temperatures. In addition to the observed parameters, a continuous barametric pressure has been obtained via recording instruments.

Daily observations are given in Appendix D. Daily temperature, humidity, and pressure maxima and minima are given in Appendix E.

PRECIPITATION

Precipitation on the Pawnee Site during 1971 was below normal for the year with the greatest deficit occurring during June, July, and August (see Table 1). Precipitation for those three months totaled 27.5 mm as compared to a mean total of 148 mm for the three months (Figure 1). Precipitation during April and September was well above normal, helping to offset the dry summer months. Precipitation during the winter and early spring months was a little above normal.

TABLE 1.

Monthly Precipitation in mm, Pawnee Site, 1971.

Month	Microwatershed						Mean
	1	2	5	6	7	8	
January		11.4	12.9	13.9	17.8	15.2	14.3
February		8.8	11.3	12.2	13.3	12.0	11.5
March		21.9	21.8	24.1	23.6	23.3	22.9
April		66.7	66.7	63.1	63.2	63.2	64.6
May		44.5	49.3	52.0	51.6	53.0	50.1
June		9.4	7.8	8.4	13.0	12.2	10.2
July	7.3	7.7	8.5	11.5	8.9	8.7	8.8
August	6.6	7.0	10.5	9.9	8.1	8.6	8.5
September	53.7	52.6	55.8	56.4	56.2	48.7	53.9
October	12.9	13.3	13.8	13.6	13.2	12.7	13.3
November	2.7	2.2	3.6	4.1	3.1	2.9	3.1
December	0.8	1.0	1.4	2.2	1.3	1.3	1.2
ANNUAL TOTAL		246.5	263.4	271.4	273.3	261.8	262.4

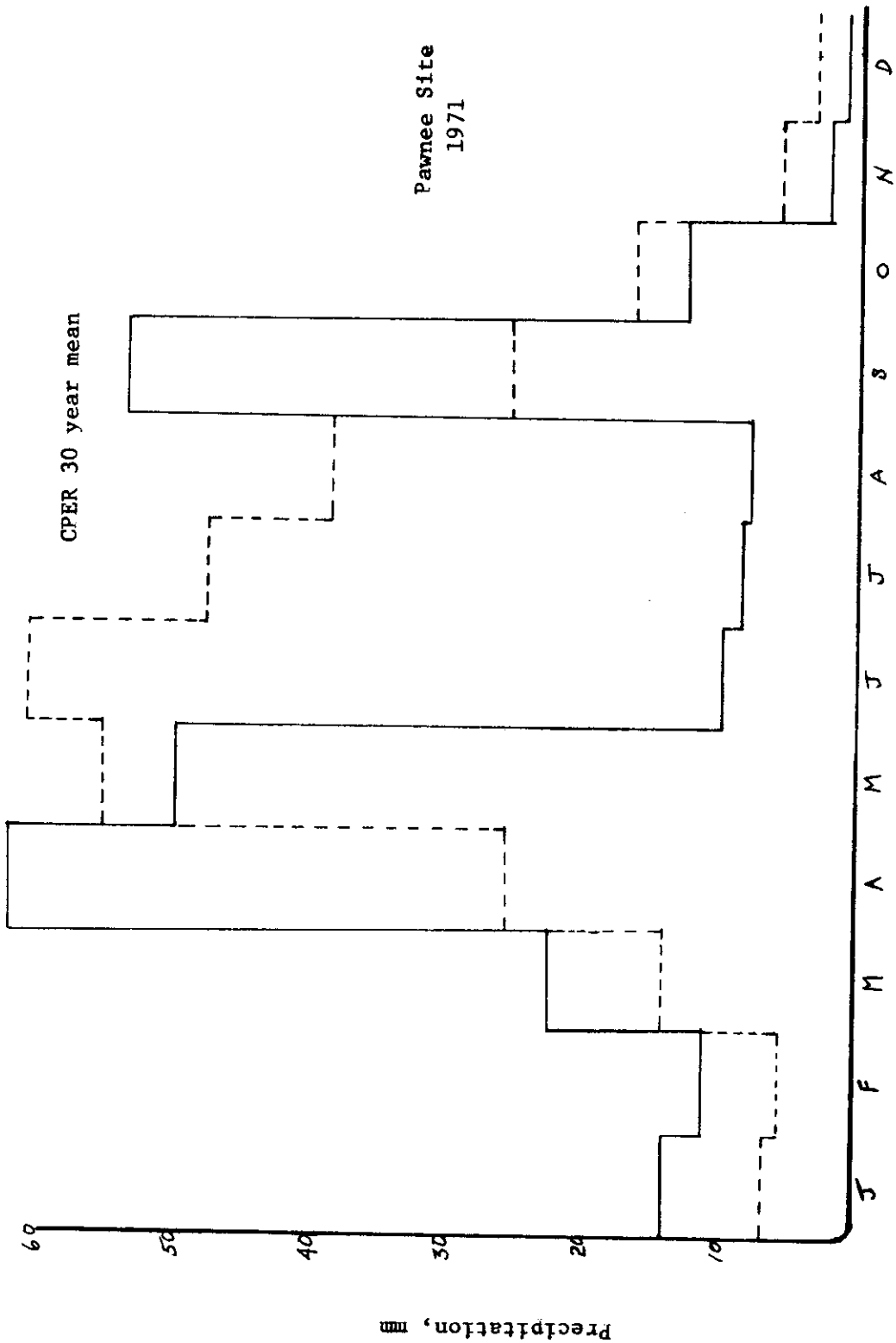

Figure 1. Monthly Precipitation, Pawnee Site, 1971.

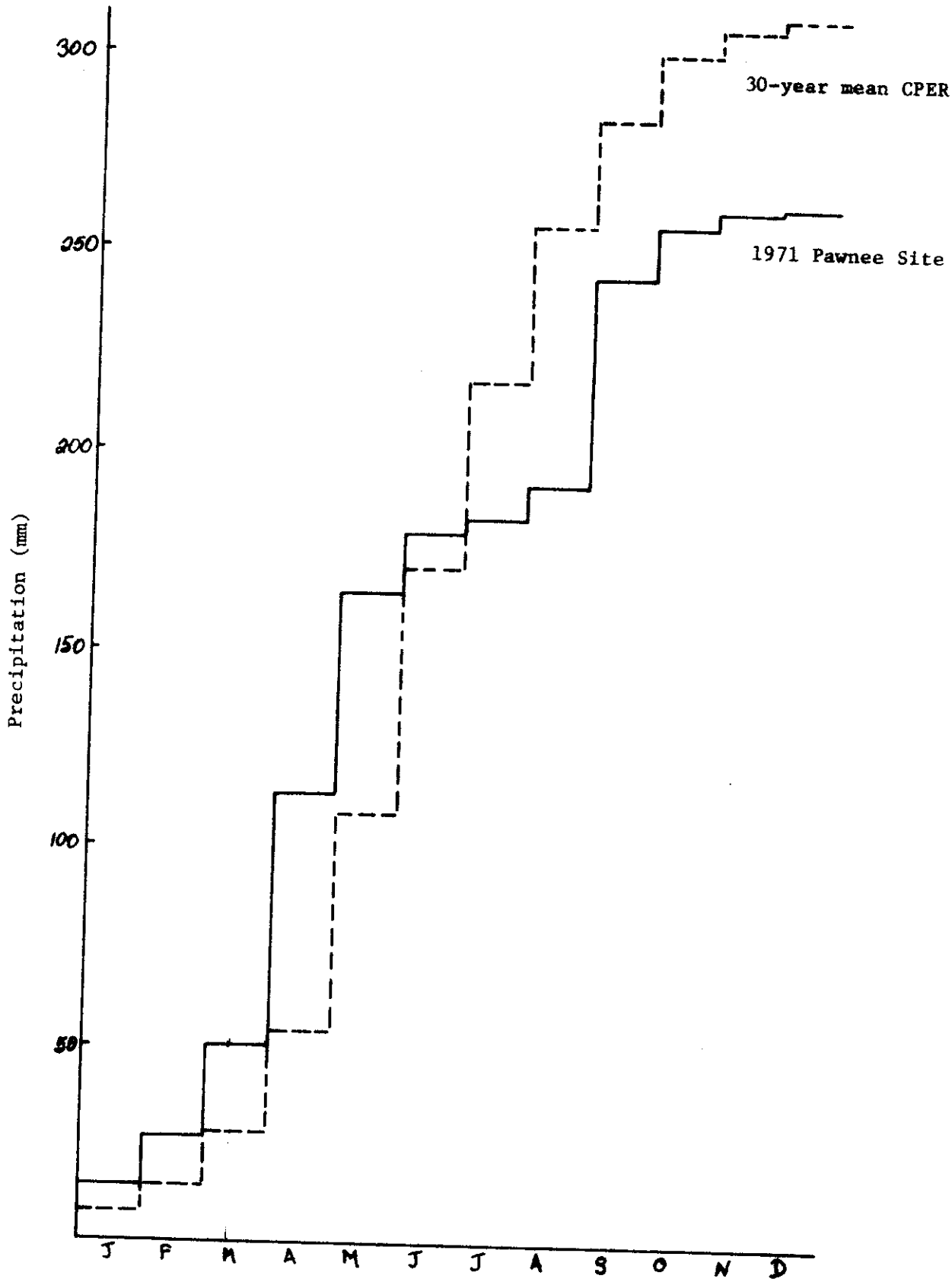

Figure 2. Cumulative Precipitation, Pawnee Site, 1971.

A total of 68 rainfall events occurred from January through October. The largest recorded event was a 20.2 mm storm on May 22. The second largest event was 18.4 mm on September 7. The size distribution of storm events is given in Table 2.

TABLE 2.

Size Distribution of Mean Precipitation Events.

Month	1 mm	1-5 mm	5-10 mm	10 mm
January		2	1	
February	1	3	1	
March		1	1	1
April	1	3	4	2
May	7	1	2	2
June	4	3		
July	2	4		
August		4		
September	2	3	2	2
October	3	4	2	
November	4	1		
December	4			
TOTAL	28	29	13	7

RUNOFF

No significant runoff events occurred during the year. The only event sufficient to measure was from the May 22 storm which generated runoff on four of the eight microwatersheds. Runoff in all cases amounted to less than 1 mm, with slightly greater runoff from the heavy grazed pasture and less from the exclosure and light grazed pasture (Table 3).

TABLE 3.

Summary of Runoff Events, 1971.

Microwatershed	Grazing Treatment	Total Storm Precipitation (mm)	Total Storm Runoff (mm)
	Storm of May 22, 1971		
1	Heavy	16.5	0.40
2	None	16.5	0.17
3	Heavy	16.5	0.29
4	Light	19.0	0.09

SOIL WATER

Soil water contents on the Pawnee Site during 1971 generally fell below water contents during the preceding season. Because of lower-than-average precipitation during the fall of 1970, soil water reservoirs were not resupplied to the same level as the previous year. Soil water was resupplied during the April and May rainy period. However, due to the low winter recharge, maximum annual water contents were still below field

capacity for the surface 150 cm. It is probably very rare to find the 150 cm depth with an average water content approaching field capacity.

Soil water depletion during the summer months was continuous and complete. Because of the low summer precipitation, soil water contents were depleted to the lowest levels measured since the first measurements were taken in 1969. Average soil water contents in the 150 cm profile were near or below the 15 bar range. In addition to the depletion in the top 150 cm, some depletion occurred at deeper depths this year.

LITERATURE CITED

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Van Haveren, B. P., and A. F. Galbraith. 1971. Some hydrologic and physical properties of the major soil types on the Pawnee Intensive Site. U.S. IBP Grassland Biome Tech. Rep. No. 115. Colorado State Univ., Fort Collins. 46 p.

APPENDIX A

Daily Precipitation Data

Pawnee Site

1971

Appendix Table 1. Daily Precipitation Data, Pawnee Site, 1971

Date	MWS 1	MWS 2	MWS 5	MSW 6	MWS 7	MWS 8	Mean
	millimeters						
January							
1	--	2.5	3.8	3.0	3.8	4.1	3.4
2	--	8.9	7.6	10.9	11.2	9.1	9.5
3	--	--	1.5	--	2.8	2.0	1.3
Total:	--	11.4	12.9	13.9	17.8	15.2	14.3
February							
5	--	1.3	1.3	1.0	1.8	1.3	1.3
6	--	1.3	1.5	2.0	1.8	1.8	1.7
14	--	--	0.8	0.8	0.8	0.8	0.6
19	--	0.8	1.3	1.8	2.0	1.5	1.5
20	--	4.6	6.4	6.6	6.9	6.6	6.2
21	--	0.8	--	--	--	--	--
Total:	--	8.8	11.3	12.2	13.3	12.0	11.5
March							
5	--	11.2	9.9	11.9	10.7	10.9	10.9
23	--	6.1	6.6	5.3	12.9	7.6	7.7
24	--	4.6	5.3	6.9	--	4.8	4.3
Total:	--	21.9	21.8	24.1	23.6	23.3	22.9
April							
5	--	1.3	1.3	1.5	1.3	1.3	1.3
17	--	0.8	1.3	1.3	1.0	1.3	1.1
18	--	--	--	--	--	1.0	0.2
19	--	7.9	8.9	8.9	8.4	8.6	8.5
20	--	2.0	2.0	2.3	2.5	2.5	2.3
21	--	13.5	13.5	12.2	11.9	12.7	12.8
22	--	10.2	10.7	9.4	8.9	8.1	9.5
24	--	8.9	7.4	5.1	5.1	5.1	6.3
25	--	14.0	13.2	14.0	15.2	13.5	14.0
26	--	8.1	8.4	8.4	8.9	9.1	8.6
Total:	--	66.7	66.7	63.1	63.2	63.2	64.6
May							
4	--	3.6	6.9	5.6	6.9	6.4	5.9
5	--	9.7	7.4	8.4	7.1	8.4	8.2
6	--	--	0.5	--	--	--	0.1
8	--	11.9	11.9	10.9	10.9	--	11.4
9	--	--	1.3	--	--	13.2	0.3
10	--	1.8	--	1.2	1.5	--	1.1
19	--	0.5	0.8	0.5	0.5	0.3	0.5

Appendix Table 1. (continued).

Date	MWS 1	MWS 2	MWS 5	MWS 6	MWS 7	MWS 8	Mean
May							
22	--	16.5	19.0	22.1	21.6	21.6	20.2
23	--	--	--	1.0	0.8	0.5	0.5
26	--	0.5	0.5	0.5	0.5	0.8	0.6
28	--	--	0.6	1.0	0.8	1.0	0.7
30	--	--	0.4	0.8	1.0	0.8	0.6
Total:	--	44.5	49.3	52.0	51.6	53.0	50.1
June							
3	--	--	--	--	0.5	0.8	0.3
4	--	--	0.4	--	0.5	--	0.1
9	--	--	--	--	0.5	0.3	0.2
12	--	1.3	0.5	1.5	2.0	3.8	1.8
13	--	3.0	2.4	2.9	3.6	2.0	2.8
14	--	5.1	4.5	4.6	5.3	5.3	5.0
17	--	--	--	--	0.5	--	0.1
Total:	--	9.4	7.8	8.4	13.0	12.2	10.2
July							
18	0.5	0.5	0.5	1.3	0.5	0.5	0.6
21	1.5	2.4	2.5	2.5	2.5	2.5	2.3
22	0.8	0.6	0.5	1.0	0.7	0.7	0.7
23	1.0	1.5	2.0	1.8	2.5	2.6	1.9
24	1.5	1.0	1.0	1.8	1.0	0.7	1.2
28	2.0	1.5	2.0	3.1	1.7	1.7	2.0
Total:	7.3	7.7	8.5	11.5	8.9	8.7	8.8
August							
1	2.4	2.2	3.5	2.0	1.5	1.0	2.1
20	1.0	1.6	3.1	3.6	3.4	4.0	2.8
23	2.0	2.0	2.5	2.5	2.0	2.1	2.2
26	1.2	1.2	1.4	1.8	1.2	1.5	1.4
Total:	6.6	7.0	10.5	9.9	8.1	8.6	8.5
September							
3	1.7	2.7	3.0	3.3	3.0	2.8	2.8
4	2.5	1.1	1.0	1.0	1.3	1.0	1.3
7	18.0	17.1	18.5	19.6	19.6	17.5	18.4
16	8.4	8.2	9.2	9.7	9.4	7.0	8.7
17	12.4	12.1	11.5	10.2	9.9	8.6	10.8
18	8.0	7.7	8.8	9.4	9.2	8.1	8.5
21	1.5	1.2	2.1	1.5	1.8	1.7	1.6
22	0.7	1.0	0.8	1.0	1.1	1.0	0.9
30	0.5	1.5	0.9	0.8	0.9	1.0	0.9
Total:	53.7	52.6	55.8	56.4	56.2	48.7	53.9

Appendix Table 1. (continued).

Date	MWS 1	MWS 2	MWS 5	MWS 6	MWS 7	MWS 8	Mean
October							
1	5.7	5.5	5.2	5.1	5.0	5.0	5.3
4	1.3	1.3	1.3	1.3	1.3	1.3	1.3
18	1.8	1.8	1.8	1.8	1.8	1.8	1.8
26	0.3	--	0.5	1.3	0.5	0.5	0.5
27	0.2	0.4	0.5	--	0.5	0.2	0.3
28	0.6	0.4	1.5	1.3	1.2	1.2	6.2
29	1.5	2.1	2.0	1.5	1.8	1.7	1.8
30	0.7	1.8	1.0	1.3	1.1	1.0	1.2
31	0.8	--	--	--	--	--	0.1
Total:	12.9	13.3	13.8	13.6	13.2	12.7	13.3
November							
2	--	--	0.3	0.3	0.2	0.2	0.2
5	0.5	0.5	1.1	1.5	1.2	1.0	1.0
17	1.2	1.2	1.2	1.3	1.2	1.2	1.2
23	0.5	0.5	0.5	0.5	--	--	0.3
30	0.5	--	0.5	0.5	0.5	0.5	0.4
Total:	2.7	2.2	3.6	4.1	3.1	2.9	3.1
December							
1	--	0.5	0.5	0.3	0.5	0.5	0.4
4	0.5	0.2	0.5	0.6	0.6	0.5	0.4
7	0.3	0.1	0.4	0.5	0.2	0.3	0.3
26	--	0.2	--	0.5	--	--	0.1
Total:	0.8	1.0	1.4	2.2	1.3	1.3	1.2
Annual Total:	--	246.5	263.4	271.4	273.3	261.8	262.4

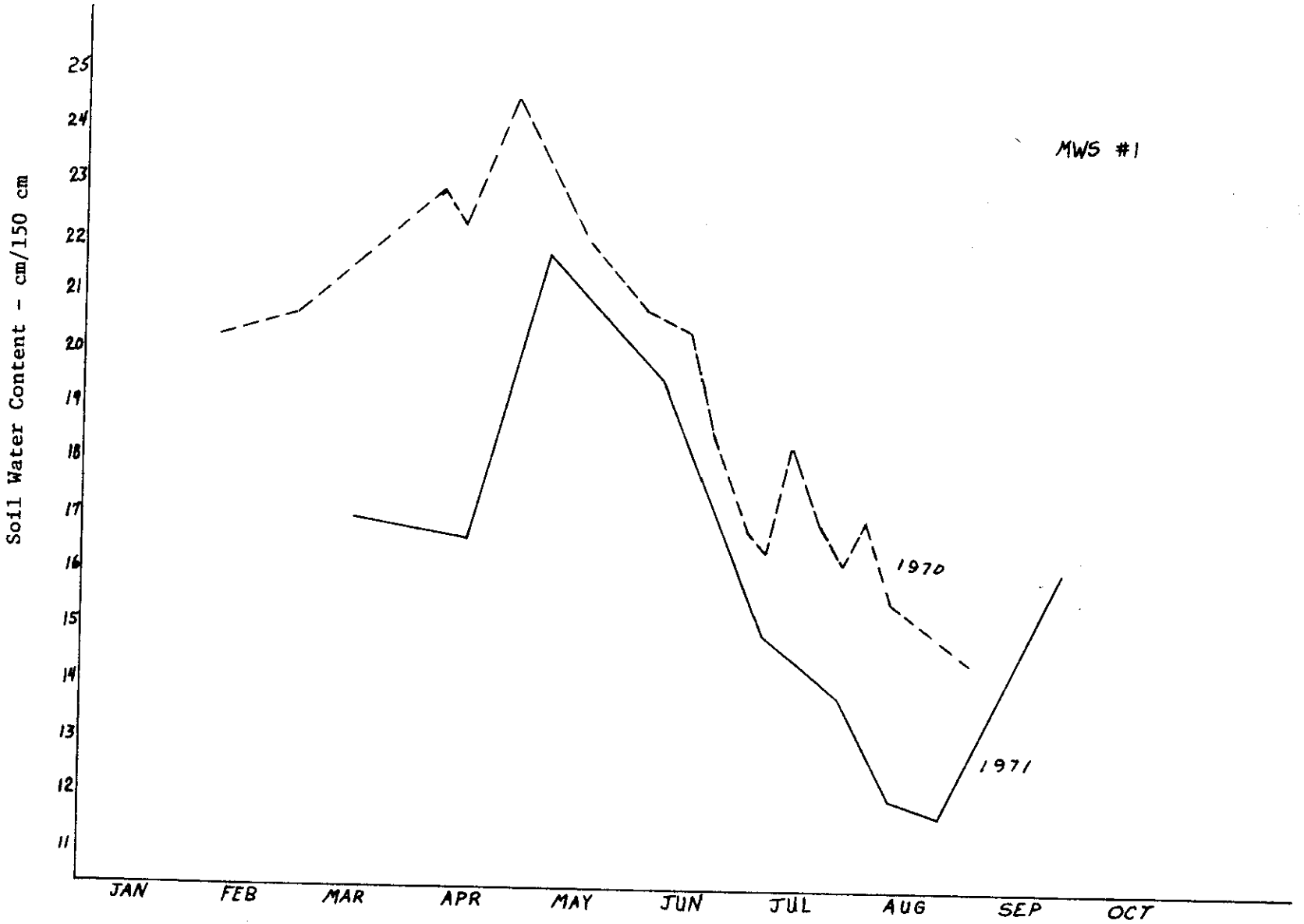
APPENDIX B

Mean Soil Water Contents for

the Microwatersheds

Appendix Table 2. Microwatersheds Soil Water Contents (cm/150 cm), 1971.

Date	MWS 1	MWS 2	MWS 3	MWS 4	MWS 5	MWS 6	MWS 7	MWS 8	Mean
March 15	16.9	20.8	23.8	18.3	17.5	--	--	--	
March 25	--	--	--	--	17.9	21.8	22.2	21.1	
April 15	16.6	23.0	23.6	18.0	16.5	20.4	20.4	20.1	
May 7	21.7	27.8	26.8	23.7	22.9	25.1	24.7	24.6	
June 8	19.4	25.4	--	--	--	--	--	--	
July 6	14.9	21.1	20.7	16.0	14.8	17.1	17.1	16.0	
July 26	13.8	19.6	19.6	14.8	14.2	15.9	16.9	15.5	
August 10	12.0	18.6	18.5	13.8	12.2	14.2	15.5	14.5	
August 24	11.6	18.0	18.1	13.4	12.1	14.0	15.1	14.6	
September 10	--	19.4	19.3	--	--	--	--	15.6	
September 26	16.1	21.4	22.0	16.9	15.6	17.6	18.8	17.8	
November 7	15.1	19.9	20.4	15.4	14.5	16.3	17.5	17.1	
December 18	13.3	21.4	20.6	15.9	14.9	16.2	18.3	17.5	


Soil Water Content - cm/150 cm
25
24
23
22
21
20
19
18
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16
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14
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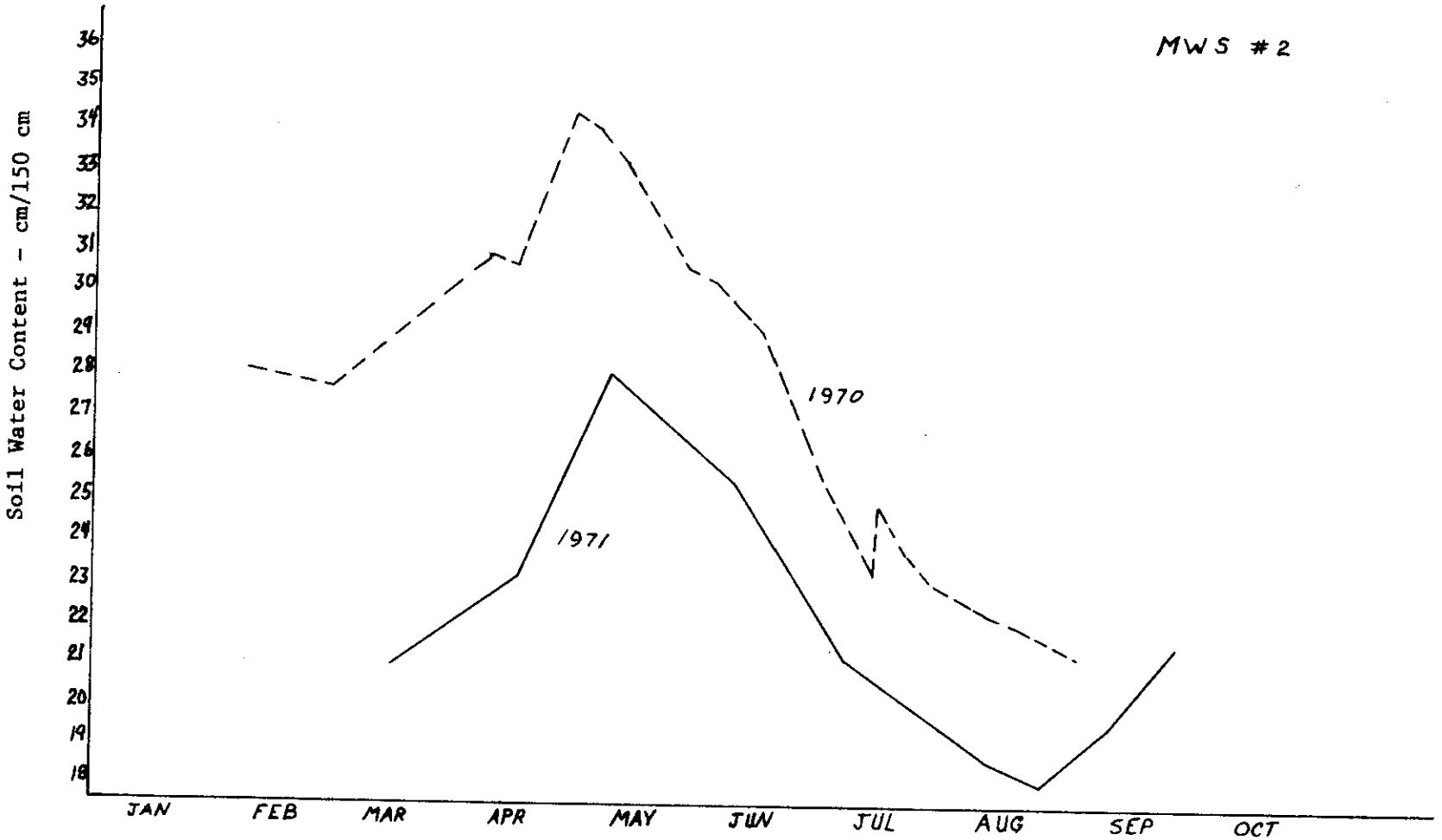
12
11
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
MWS #1
1970
1971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Soil Water Content - cm/150 cm
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
1970
1971
JAN
FEB
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APR
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JUN
JUL
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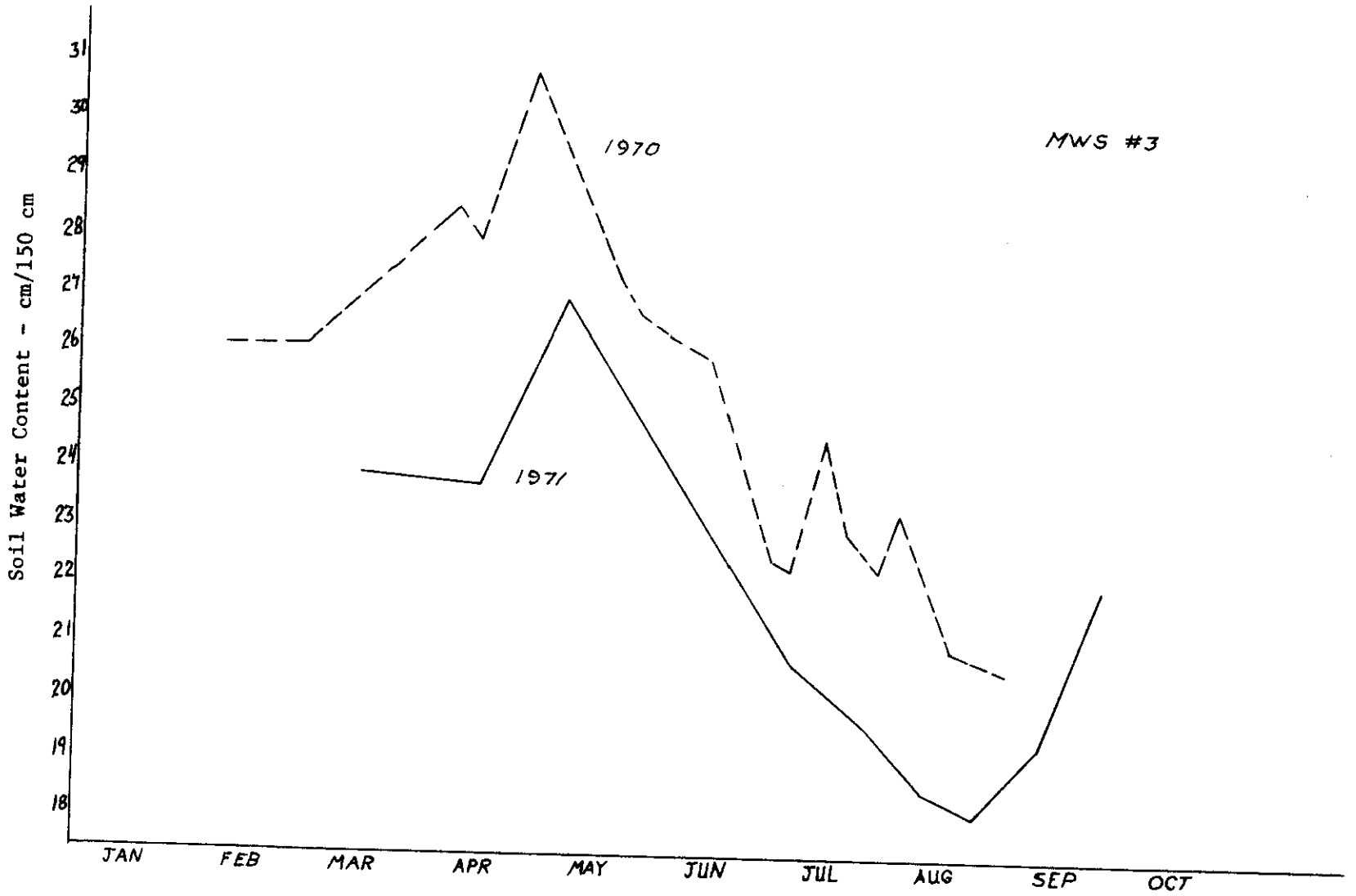
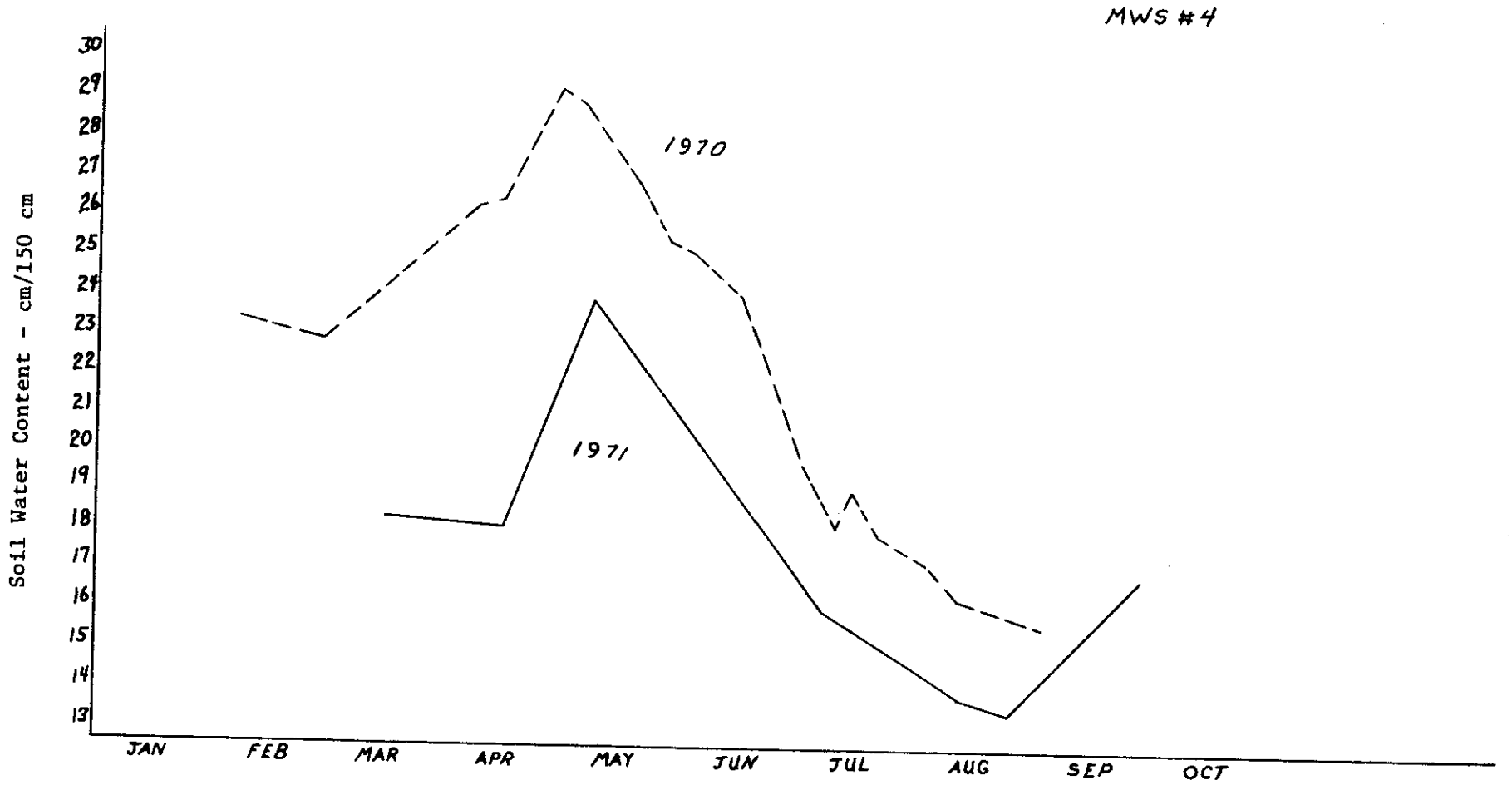
SEP
OCT


Soil Water Content - cm/150 cm
31
30
29
28
27
26
25
24
23
22
21
20
19
18
1970
1971
MWS #3
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT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Soil Water Content - cm/150 cm
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
1970
1971
JAN
FEB
MAR
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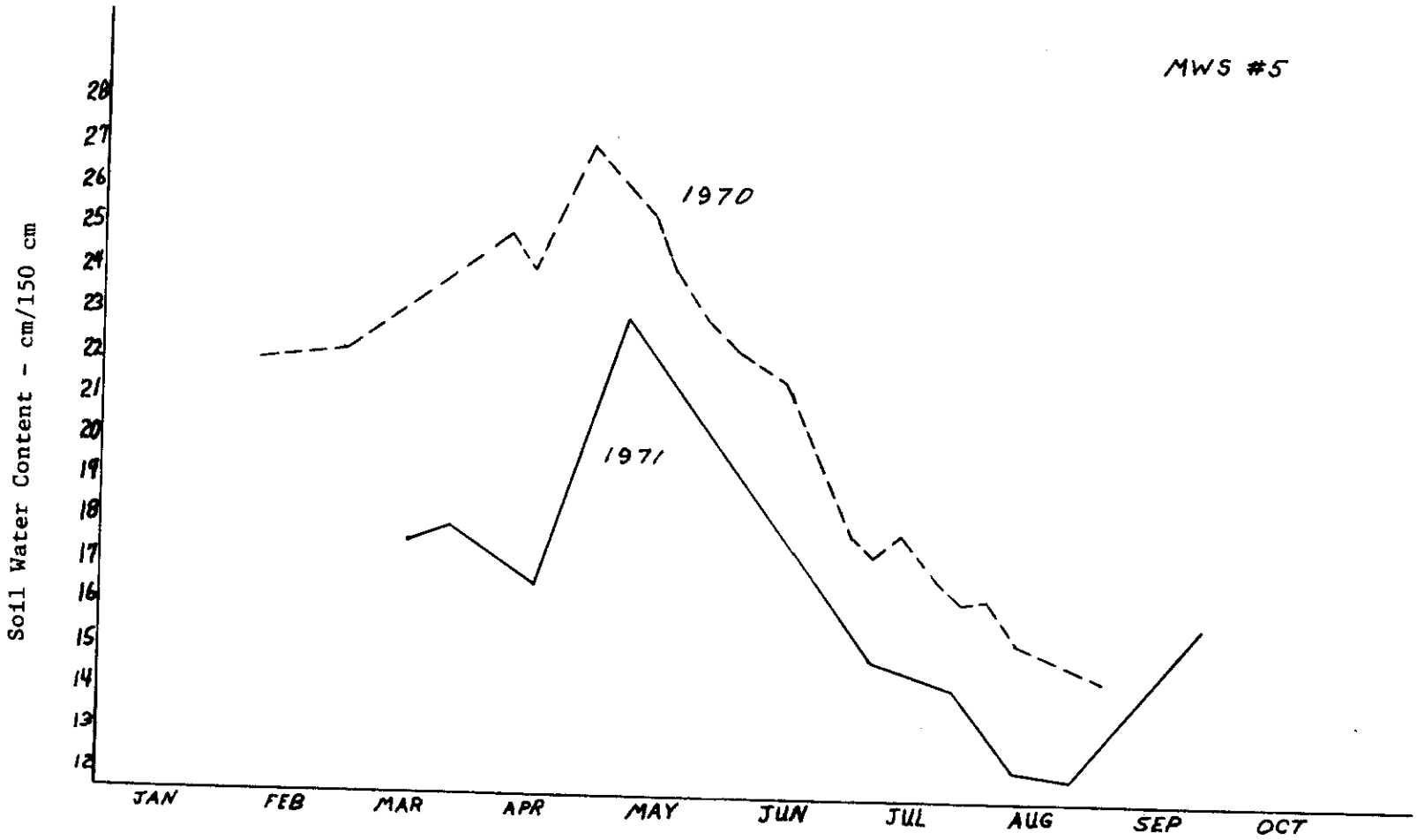
MAY
JUN
JUL
AUG
SEP
OCT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Soil Water Content - cm/150 cm
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
1970
1971
JAN
FEB
MAR
APR
MAY
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SEP
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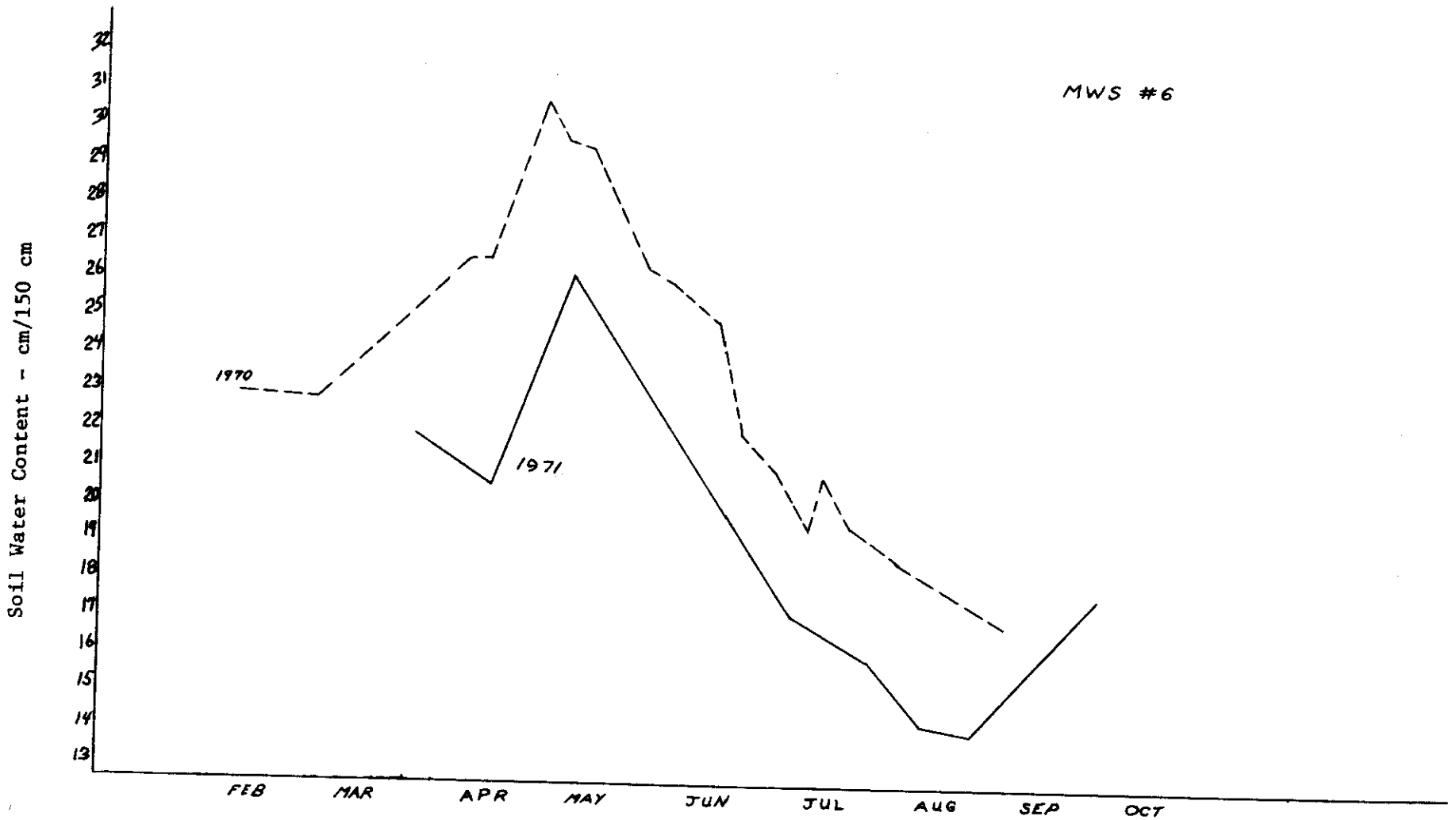
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13
MWS #6
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1971
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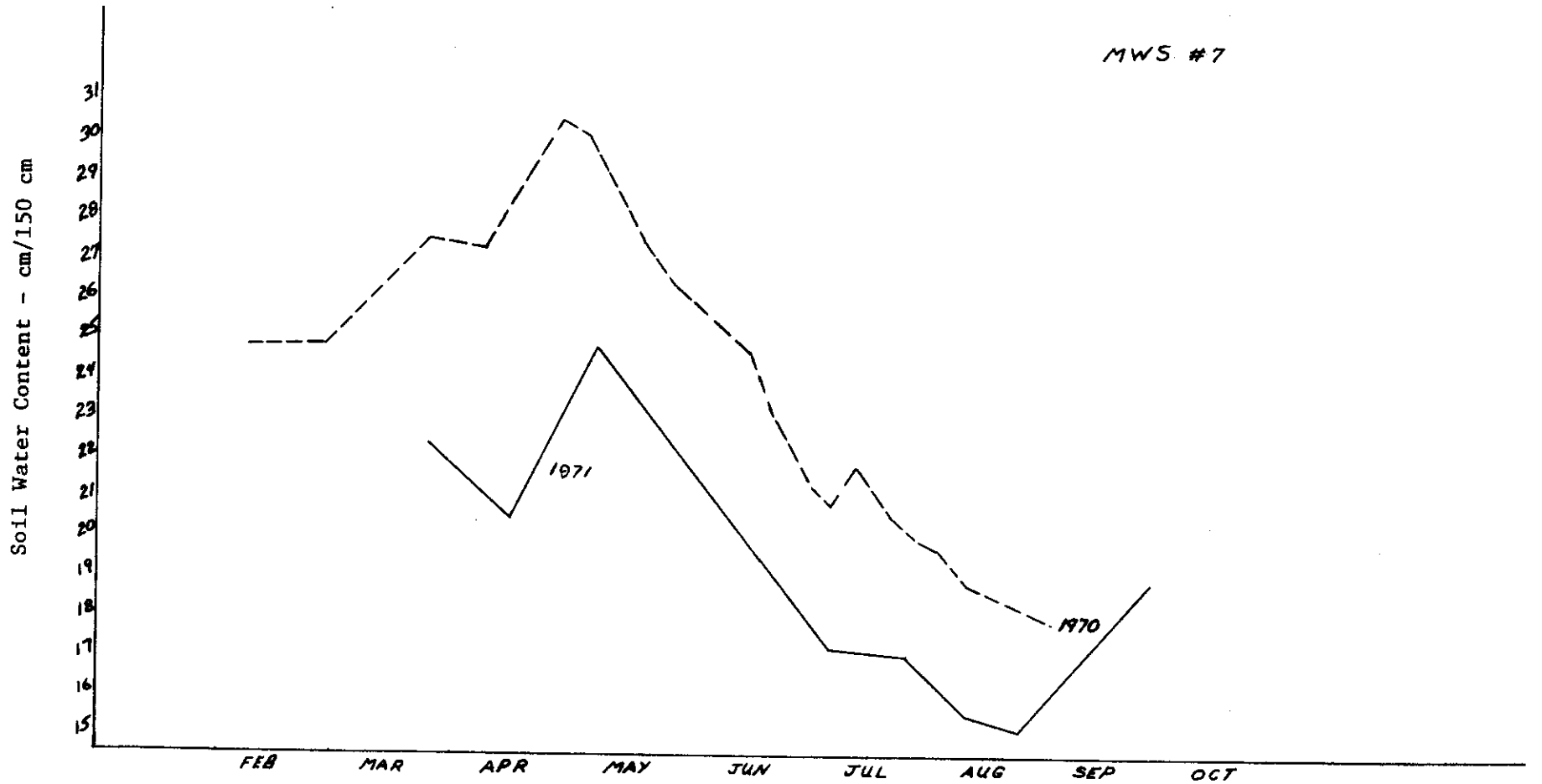
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT


MWS #7
Soil Water Content - cm/150 cm
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
1971
1970
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT

MWS #8
1971
1970
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEPT
Soil Water Content - cm/150 cm

APPENDIX C

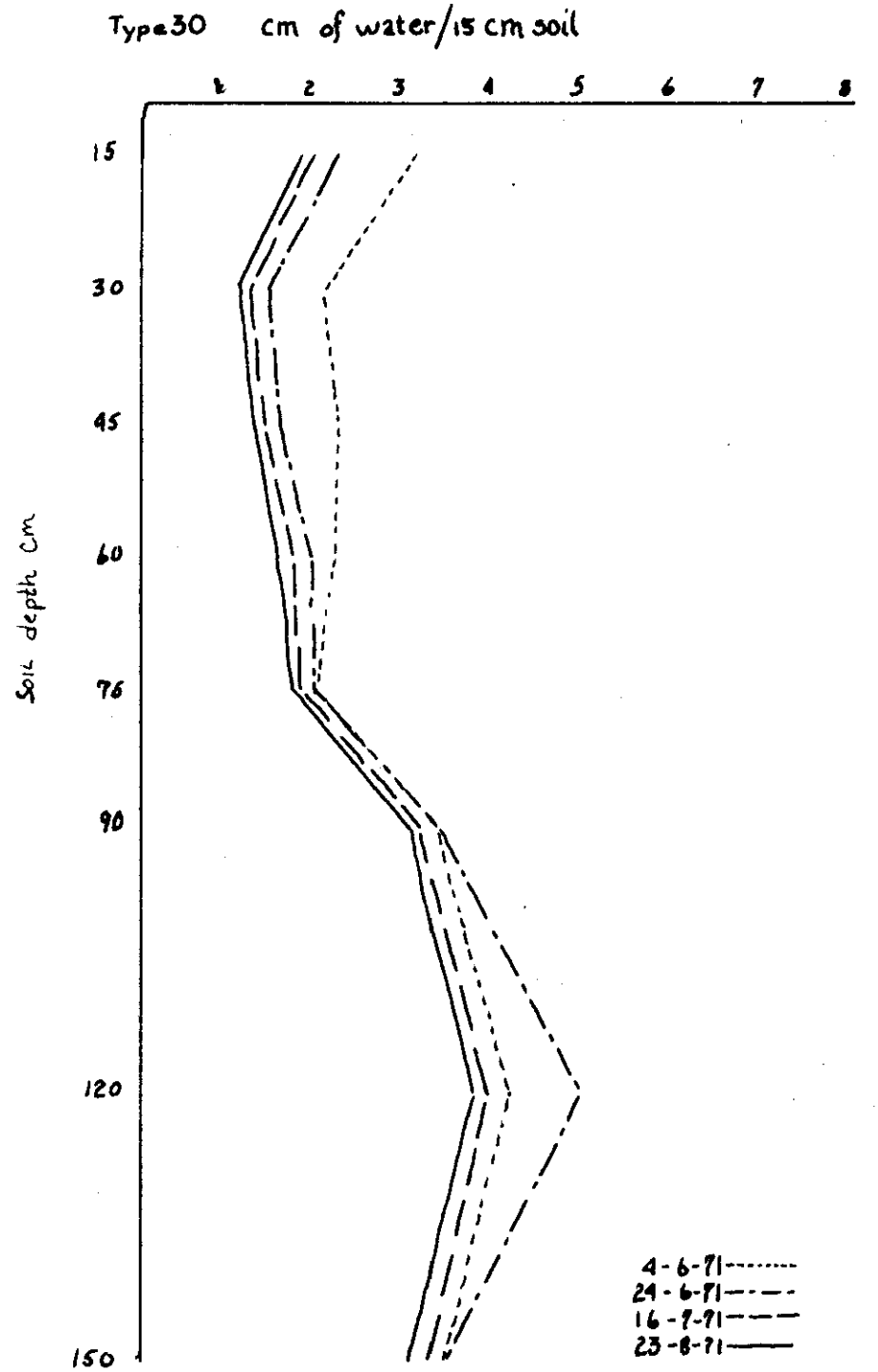
Soil Transects, Soil Water Contents

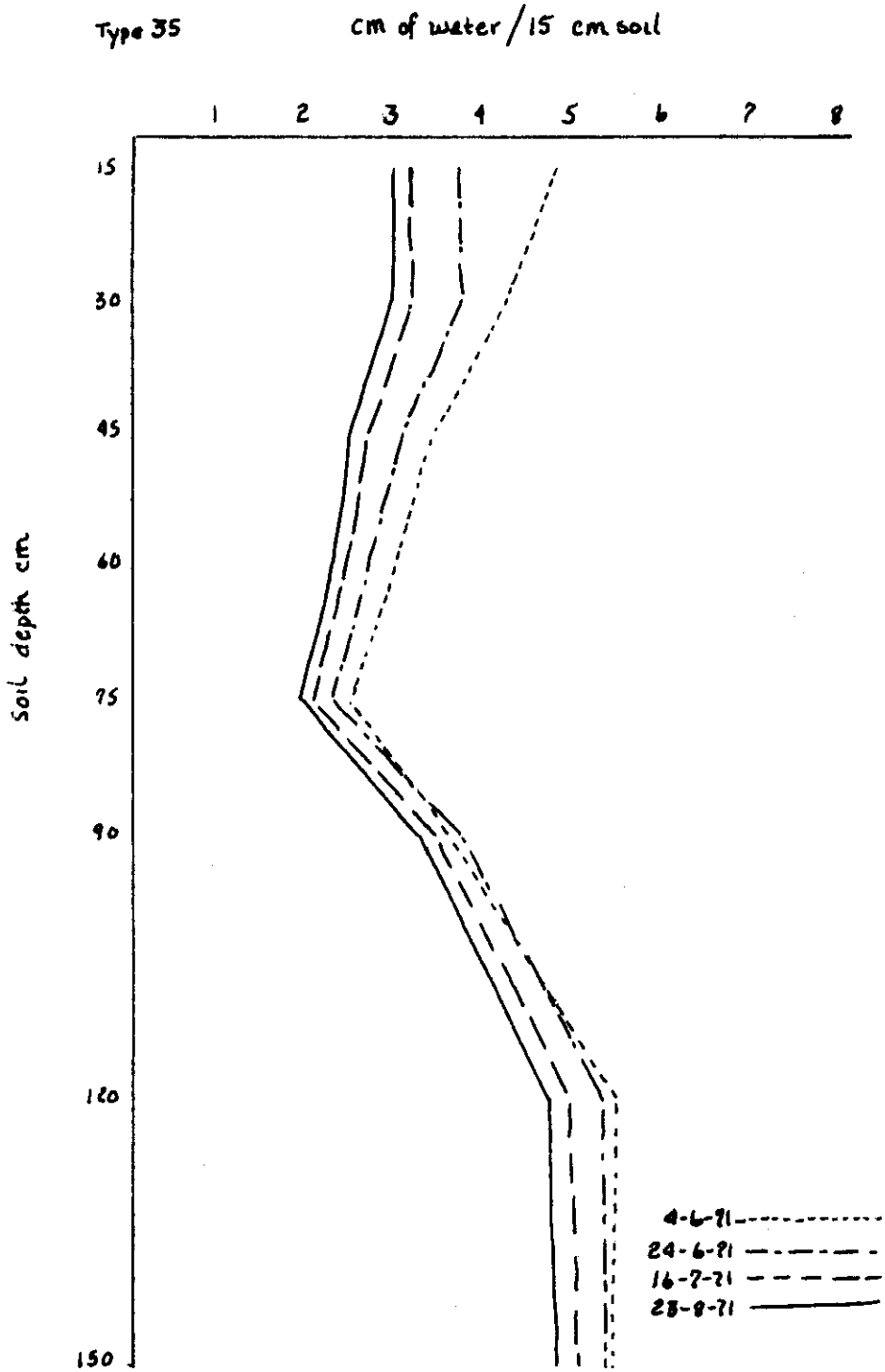
Pawnee Site

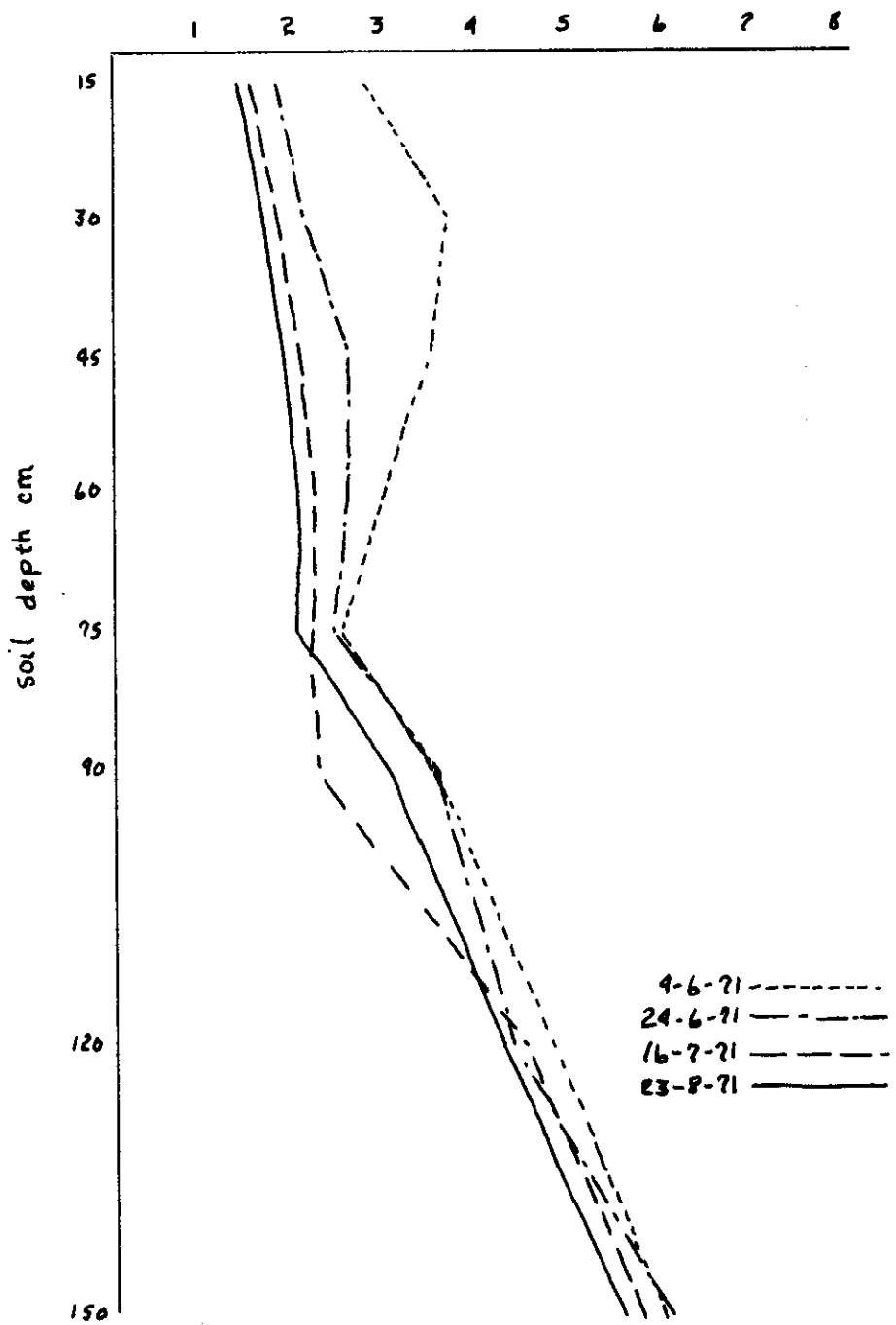
1971

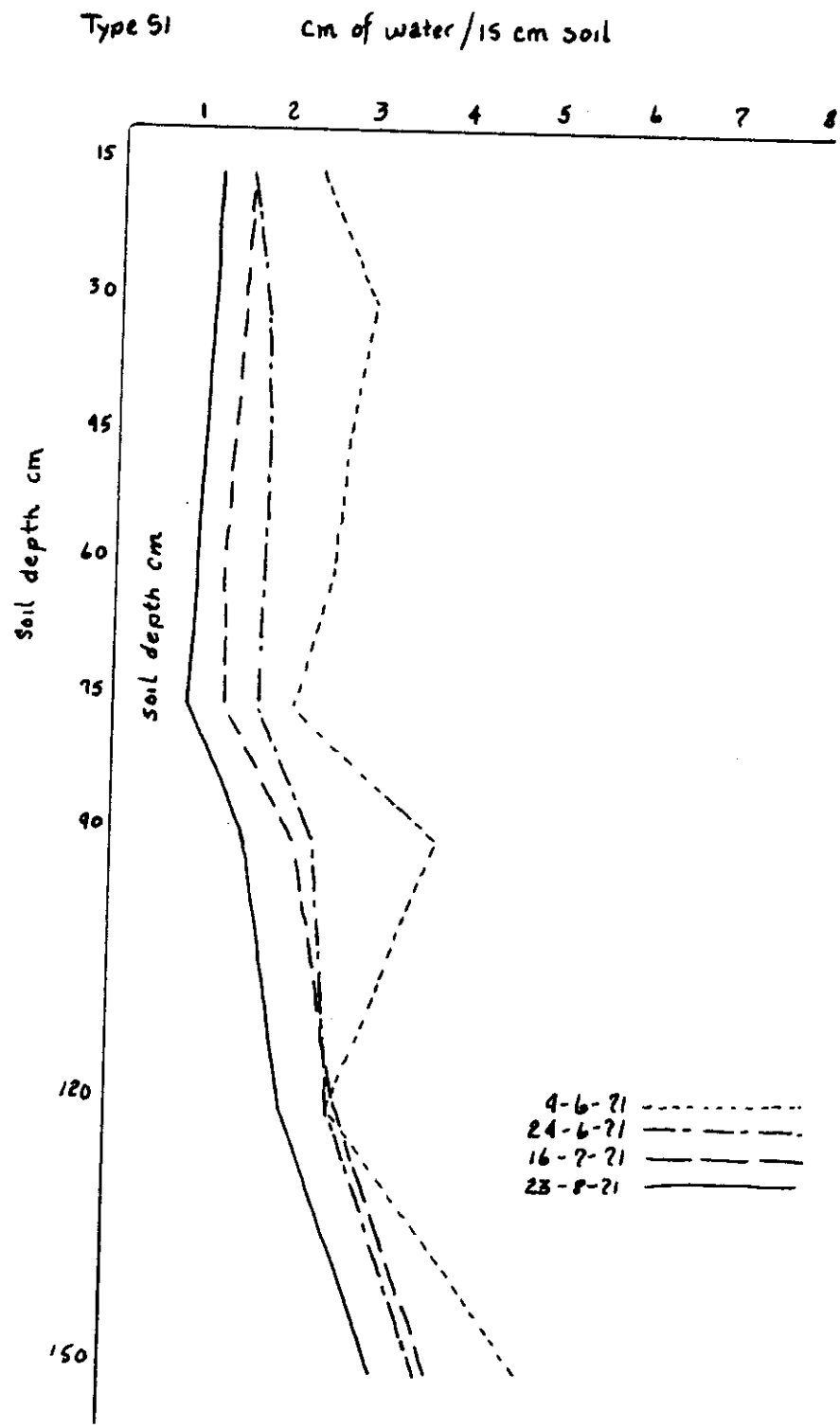
Appendix Table 3. Soil Transects, Soil Water Contents (cm/150 cm), 1971.

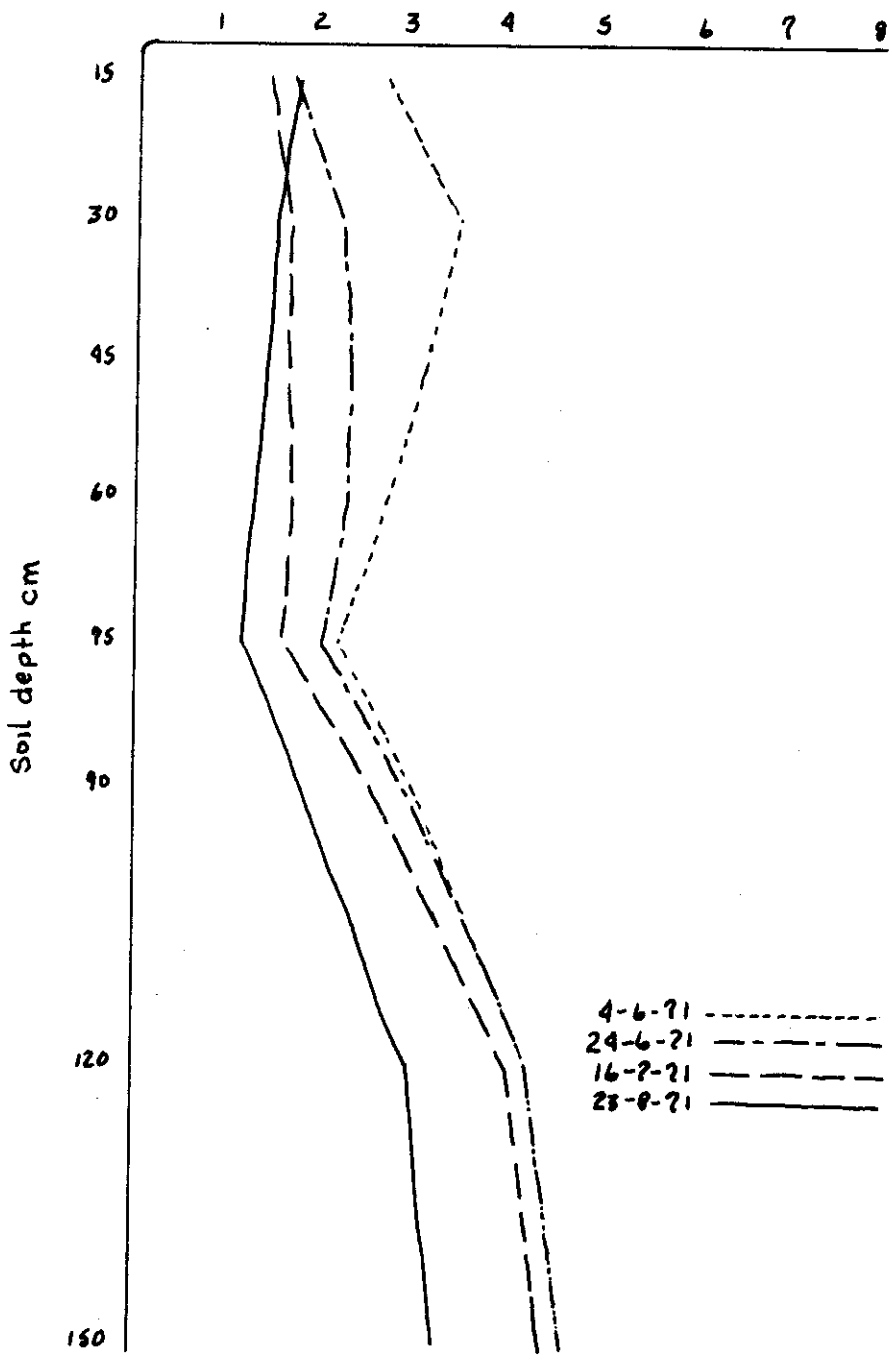
Date	30	35	47	51	55	66	87B	87Z
8/5/70	20.9	29.7	26.8	17.4	23.8	26.5	26.7	39.2
8/11/70	20.7	29.0	27.3	16.6	23.2	24.1	24.8	32.8
9/3/70	20.2	28.6	24.0	15.5	19.9	20.3	23.4	31.1
12/12/70	20.2	28.6	26.1	15.8	21.4	24.0	25.5	31.8
1/29/71	22.5	31.5	27.3	17.4	23.2	25.5	28.2	33.8
3/24/71	20.2	28.6	27.8	17.2	23.6	25.9	28.4	34.4
4/18/71	20.2	28.6	27.1	16.6	22.8	25.2	28.2	33.8
5/6/71	27.3	35.0	30.6	24.2	28.0	28.8	32.0	37.9
6/4/71	23.5	32.9	30.3	23.9	27.1	28.8	31.7	37.6
6/24/71	21.9	30.4	26.5	17.5	23.3	25.2	26.6	33.8
7/4/71	20.4	29.2	25.6	16.0	21.7	23.4	26.5	31.9
7/16/71	19.4	27.5	24.0	16.0	20.1	22.0	24.0	30.5
7/24/71	19.3	27.2	23.8	14.2	19.7	21.7	23.9	29.3
7/28/71	19.7	27.5	23.5	14.1	19.7	21.4	23.8	29.3
8/6/71	18.6	26.7	22.9	13.2	18.6	20.4	23.8	28.7
8/9/71	18.2	25.7	22.7	12.8	18.6	20.4	23.5	28.2
8/16/71	18.0	25.5	22.3	12.6	18.2	20.0	23.2	27.8
8/23/71	18.4	25.9	22.5	12.5	18.2	20.1	22.6	28.0
9/10/71	18.9	26.9	20.1	13.9	19.4	20.8	21.0	29.7
10/10/71	20.9	28.6	21.8	16.2	21.5	22.7	25.7	31.6
11/21/71	20.3	28.0	25.5	15.7	21.4	23.0	25.6	31.2
3/23/72	17.3	25.5	21.4	13.5	18.3	19.9	21.9	27.6
4/11/72	13.9	24.5	20.9	12.9	17.7	19.4	21.9	27.0
4/25/72	13.9	24.8	20.8	12.6	17.8	19.4	22.1	26.7

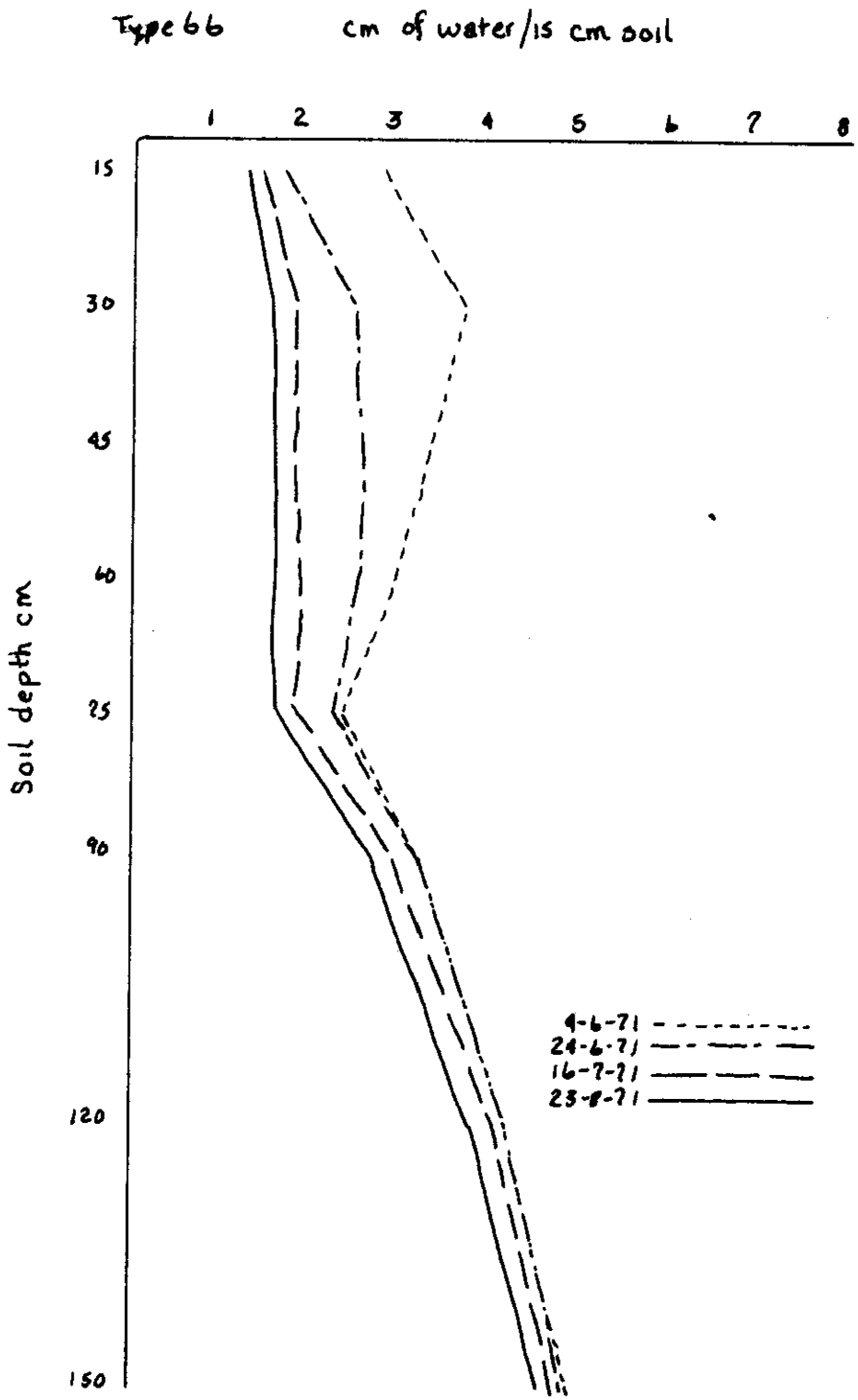

Type 30
cm of water/15 cm soil
1
2
3
4
5
6
7
8
15
30
45
60
76
90
120
150
Soil depth cm
4-6-71
24-6-71
16-7-71
23-8-71

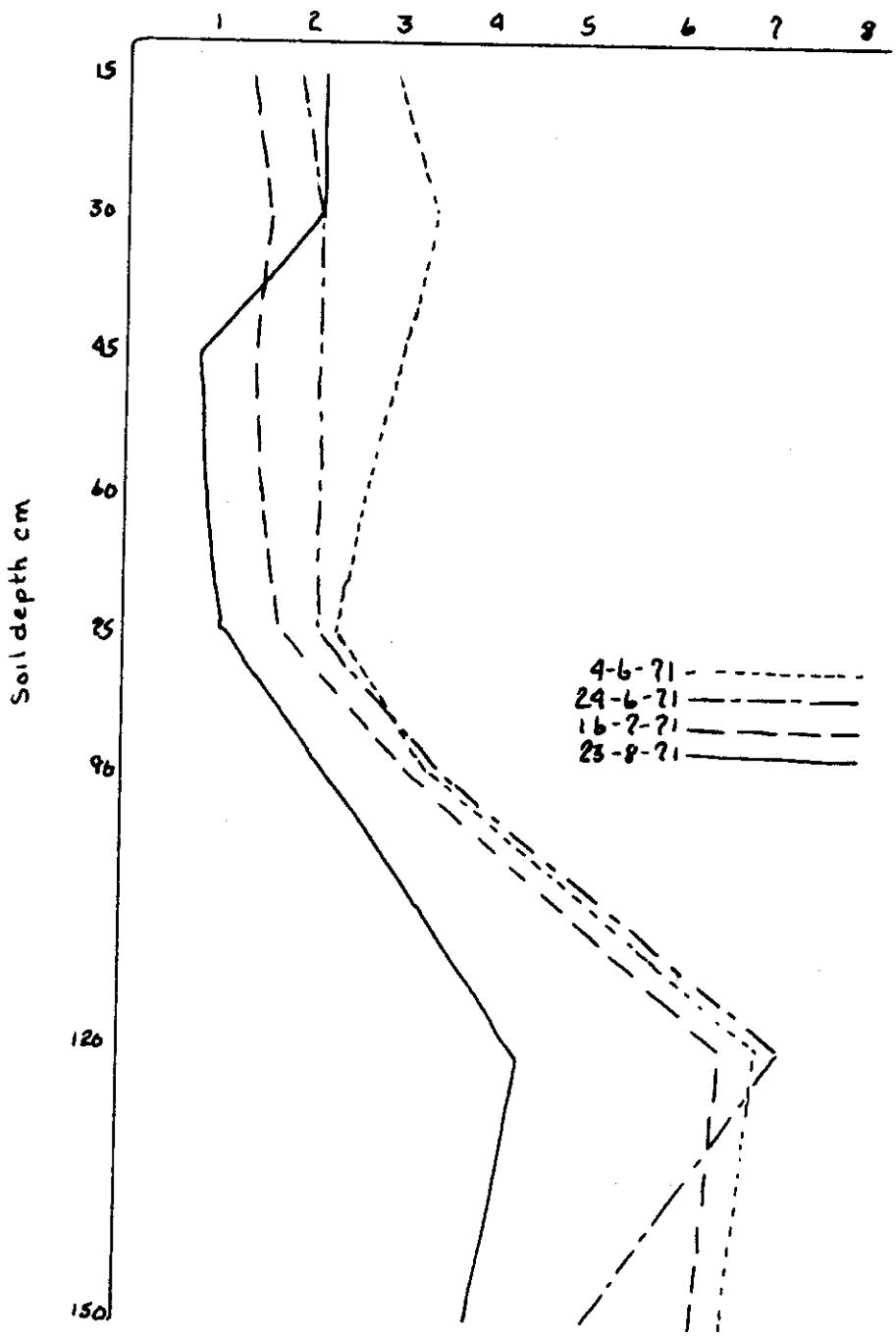

Type 35
cm of water / 15 cm soil
1
2
3
4
5
6
7
8
15
30
45
60
75
90
120
150
Soil depth cm
4-6-71
24-6-71
16-7-71
28-8-71

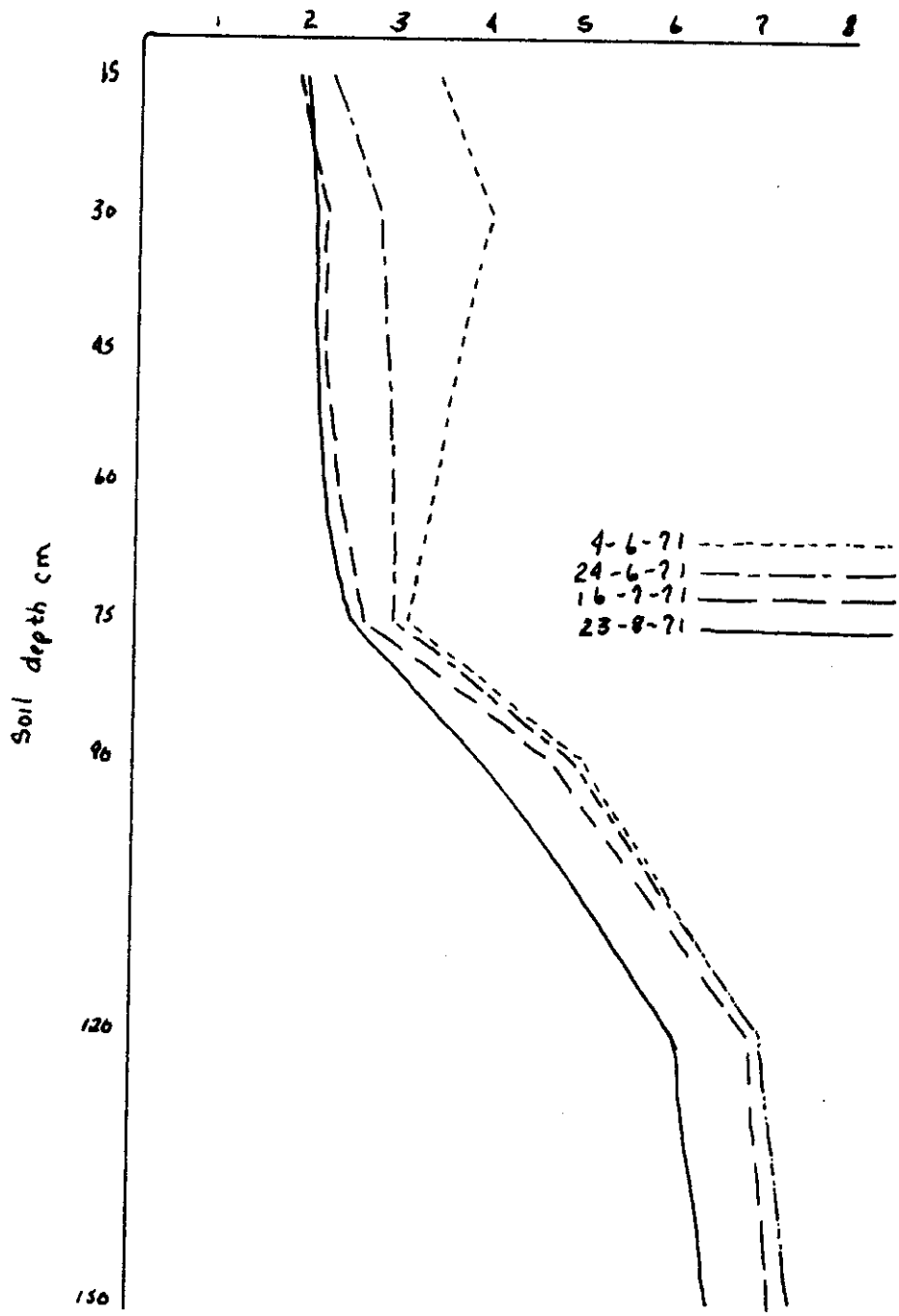

Type 47
cm of water/15 cm soil
1
2
3
4
5
6
7
8
15
30
45
60
75
90
120
150
Soil depth cm
4-6-71
24-6-71
16-7-71
23-8-71


Type 51
cm of water / 15 cm soil
1
2
3
4
5
6
7
8
15
30
45
60
75
90
120
150
Soil depth cm
soil depth cm
4-6-71
24-6-71
16-?-71
23-8-71


Type 55
cm of water/15 cm soil
1
2
3
4
5
6
7
8
15
30
45
60
75
90
120
150
Soil depth cm
4-6-71
24-6-71
16-7-71
28-8-71


Type 66
cm of water/15 cm soil
1
2
3
4
5
6
7
8
15
30
45
60
75
90
120
150
Soil depth cm
9-6-71
24-6-71
16-7-71
23-8-71


Type 87 B
cm of water/15 cm soil
1
2
3
4
5
6
7
8
15
30
45
60
75
90
120
150
Soil depth cm
4-6-71
24-6-71
16-7-71
25-8-71


Type 87Z
cm of water/15 cm soil
1
2
3
4
5
6
7
8
15
30
45
60
75
90
120
150
Soil depth cm
4-6-71
24-6-71
16-7-71
23-8-71

APPENDIX D

Daily Climatic Observations

Pawnee Site

1971

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1652 M (MSL) EXCLOSURE E 1/2 SEC 23 T10N R66W. 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN, COLORADO

DATE	MT. ST. TIME	AIR-TEMPERATURE MAX	MIN	OBS	PAN-TEMPERATURE MAX	MIN	EVAP. AMOUNT	WIND TRAVEL	OBSERVATIONS SKY	TEMP.	WIND	PRECIPITATION	GENERAL COMMENTS
01/01/71	1630	4	-6	-2					OVERCAST	COLD	LT. WIND		
01/02/71	1630	-4	-11	-9					OVERCAST	COLD	STRONG	DRIFTED SNOW	LOOKS LIKE SNO. 5 IN.SNOW
01/03/71	1600	-12	-15	-13					OVERCAST	COLD	LT. WIND	DRIFTED SNOW	6 IN. SNO. FALL
01/04/71	2000	-14	-22	-19					OVERCAST	COLD	LT. WIND		WIND DRIFTS
01/05/71	1800	-16	-24	-20					OVERCAST	COLD	LT. WIND		
01/06/71	1730	-10	-26	-21					CLEAR	COLD	LT. WIND		
01/07/71	1600	-7	-28	-9					SCATTERED	COLD	LT. WIND	DRIFTED SNOW	
01/08/71	1700	3	-19	2					SCATTERED	COLD	LT. WIND		
01/09/71	1800	6	-7	2					THUNDERHEADS	COLD	LT. WIND		
01/10/71	1715	11	-6	-1					SCATTERED	COLD	LT. WIND	DRIFTED SNOW	
01/11/71	1645	4	-12	-10					SCATTERED	COLD	LT. WIND	DRIFTED SNOW	
01/12/71	1700	-7	-12	-9					SCATTERED	COLD	LT. WIND		LOTS OF FOG
01/13/71	1830	1	-15	-4					OVERCAST	COLD	LT. WIND	DRIFTED SNOW	
01/14/71	1930	-1	-12	-9					CLEAR	COLD	LT. WIND		
01/15/71	1700	5	-12	3					SCATTERED	CHILLY	LT. WIND	DRIFTED SNOW	
01/16/71	1800	9	-11	3					OVERCAST	CHILLY	LT. WIND	DRIFTED SNOW	
01/17/71	1630	13	1	12					OVERCAST	WARM	LT. WIND	DRIFTED SNOW	
01/18/71	1730	12	1	2					OVERCAST	WARM	LT. WIND		TRACE
01/19/71	1700	11	-4	6					SCATTERED	WARM	LT. WIND		TRACE
01/20/71	1630	18	-4	14					SCATTERED	WARM	STRONG		TRACE
01/21/71	1730	13	-9	4					SCATTERED	COLD	GUSTY		TRACE
01/22/71	2000	4	-9	-6					CLEAR	COLD	LT. WIND		TRACE
01/23/71	1630	4	-8	3					CLEAR	COLD			TRACE
01/24/71	1615	8	-6	6					OVERCAST	CHILLY	STRONG		
01/25/71	1700	9	-9	7					HAZY	CHILLY	STRONG		
01/26/71	1700	14	-8	11					OVERCAST	CHILLY	STRONG		
01/27/71	1600	13	-6	12					SCATTERED	CHILLY	STRONG		
01/28/71	1700	14	-9	10					SCATTERED	CHILLY	GUSTY		
01/29/71	1700	18	-5	12					OVERCAST	CHILLY	STRONG		
01/30/71	1630	17	-6	14					OVERCAST	WARM	STRONG		
01/31/71	1800	14	-8	-1					SCATTERED	CHILLY	LT. WIND		

TEMPERATURES (C), EVAPORATION (MM), WIND TRAVEL (KM/DAY)
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE.

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1652 M (MSL) EXCLOSURE E 1/2 SEC 23 T10N R66W, 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN, COLORADO

DATE	MT. ST. TIME	AIR-TEMPERATURE MAX	AIR-TEMPERATURE MIN	AIR-TEMPERATURE OBS	PAN-TEMPERATURE MAX	PAN-TEMPERATURE MIN	EVAP. AMOUNT	WIND TRAVEL	OBSERVATIONS SKY	OBSERVATIONS TEMP.	OBSERVATIONS WIND	OBSERVATIONS PRECIPITATION	GENERAL COMMENTS
02/01/71	1800	-1	-8	-2					SCATTERED	COLD	LT. WIND		
02/02/71	1600	11	-7	9					OVERCAST	CHILLY	STRONG		VERY LGT. MIST
02/03/71	1630	8	-8	-5					OVERCAST	COLD	LT. WIND		VERY LGT. MIST
02/04/71	1630	1	-17	0					SCATTERED	COLD	LT. WIND		
02/05/71	1700	1	-24	-8					OVERCAST	COLD	LT. WIND		HALF IN. SNO.
02/06/71	1830	-9	-21	-15					OVERCAST	COLD	LT. WIND	DRIFTED SNOW	
02/07/71	1800	-11	-23	-12					OVERCAST	COLD	LT. WIND	DRIFTED SNOW	
02/08/71	1645	-3	-12	-5					OVERCAST	COLD	LT. WIND	DRIFTED SNOW	
02/09/71	1700	12	-13	4					CLEAR	CHILLY	LT. WIND		TRACE
02/10/71	1730	13	-8	9					SCATTERED	CHILLY	GUSTY		SNOW ALL GONE
02/11/71	1700	8	-6	2					OVERCAST	COLD	STRONG		SNOW FLURRIES
02/12/71	1915	14	-9	-1					CLEAR	CHILLY	LT. WIND		MOVED STATION
02/13/71	1600	17	-7	15					SCATTERED	WARM	LT. WIND		
02/14/71	1630	14	-2	10					SCATTERED	WARM	LT. WIND		SNOW ALL GONE
02/15/71	1630	15	-6	11					OVERCAST	WARM	LT. WIND		
02/16/71	1730	11	-6	6					CLEAR	COLD	GUSTY		
02/17/71	1730	11	-8	4					SCATTERED	COLD	STRONG		
02/18/71	1700	5	-1	3					OVERCAST	COLD	STRONG		
02/19/71	1700	7	-3	4					OVERCAST	COLD	LT. WIND		4IN.SNO.SNOWING
02/20/71	1630	3	-7	-6					OVERCAST	COLD	LT. WIND	DRIFTED SNOW	
02/21/71	1630	-8	-15	-8					CLEAR	COLD	LT. WIND	DRIFTED SNOW	
02/22/71	1800	1	-15	-10					CLEAR	COLD	LT. WIND	DRIFTED SNOW	
02/23/71	1630	1	-17	-1					SCATTERED	CHILLY	LT. WIND	DRIFTED SNOW	
02/24/71	1600	6	-15	4					CLEAR	CHILLY	LT. WIND		
02/25/71	1630	9	-9	2					OVERCAST	COLD	STRONG	DRIFTED SNOW	
02/26/71	1645	-1	-16	-3					CLEAR	COLD	STRONG	DRIFTED SNOW	
02/27/71	1700	4	-15	-3					SCATTERED	COLD	LT. WIND	DRIFTED SNOW	
02/28/71	1800	1	-15	-3					OVERCAST	COLD	LT. WIND	DRIFTED SNOW	

TEMPERATURES (C), EVAPORATION (MM), WIND TRAVEL (KM/DAY)
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE.

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1647 M (MSL) EXCLOSURE E 1/2 SEC 27 T10N R66W, 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN, COLORADO

DATE	MT. ST. TIME	AIR-TEMPERATURE MAX	MIN	OBS	PAN-TEMPERATURE MAX	MIN	EVAP. AMOUNT	WIND TRAVEL	OBSERVATIONS SKY	TEMP.	WIND	PRECIPITATION	GENERAL COMMENTS
03/01/71	1700	-3	-9	-6					SCATTERED	COLD	STRONG	DRIFTED SNOW	
03/02/71	1800	-3	-16	-7					SCATTERED	COLD	LT. WIND	DRIFTED SNOW	
03/03/71	1745	9	-16	7					SCATTERED	CHILLY	STRONG	DRIFTED SNOW	
03/04/71	1630	11	-10	4					OVERCAST	CHILLY	LT. WIND		TRACES
03/05/71	1600	4	-7	-7					OVERCAST	COLD	STRONG	DRIFTED SNOW	
03/06/71	1700	-7	-18	-7					SCATTERED	COLD	STRONG	DRIFTED SNOW	
03/07/71	1800	2	-20	-6					CLEAR	COLD	LT. WIND	DRIFTED SNOW	
03/08/71	1730	7	-13	2					OVERCAST	CHILLY	STRONG	DRIFTED SNOW	
03/09/71	1715	6	-11	5					SCATTERED	CHILLY	LT. WIND	DRIFTED SNOW	
03/10/71	1700	8	-8	7					SCATTERED	CHILLY	LT. WIND	DRIFTED SNOW	
03/11/71	1900	9	-9	1					CLEAR	CHILLY	LT. WIND		TRACES
03/12/71	1730	13	-10	9					SCATTERED	WARM	LT. WIND		TRACES
03/13/71	1700	15	-9	9					SCATTERED	WARM	LT. WIND		TRACES
03/14/71	1800	8	-7	0					SCATTERED	WARM	LT. WIND		TRACES
03/15/71	1715	8	-6	3					SCATTERED	WARM	STRONG		TRACES
03/16/71	1715	8	-6	5					SCATTERED	WARM	STRONG		TRACES
03/17/71	1630	9	-6	-2					OVERCAST	CHILLY	GUSTY		SNO, 35 MPH WND
03/18/71	1700	-1	-7	-2					SCATTERED	CHILLY	GUSTY		20 MPH WIND
03/19/71	1600	7	-8	7					SCATTERED	WARM	STRONG		20 MPH WIND
03/20/71	1645	16	-7	13					SCATTERED	COLD	STRONG		25 MPH WIND
03/21/71	1630	13	-8	10					OVERCAST	WARM	LT. WIND		5 MPH WIND
03/22/71	1715	9	-6	-1					OVERCAST	COLD	STRONG		RHIME
03/23/71	1800	5	-9	-2					OVERCAST	COLD	STRONG	DRIFTED SNOW	1 IN. SNOW
03/24/71	1800	4	-5	2					SCATTERED	COLD	STRONG		TRACES
03/25/71	1815	12	-6	8					SCATTERED	WARM	STRONG		NO SNOW
03/26/71	1715	23	-3	23					SCATTERED	WARM			NO WIND
03/27/71	1600	23	-3	16					SCATTERED	WARM	LT. WIND		20 MPH WIND
03/28/71	1700	17	-9	7					SCATTERED	CHILLY	STRONG		20 MPH WIND
03/29/71	1615	16	-13	16					CLEAR	WARM	LT. WIND		5 MPH WIND
03/30/71	1800	24	-12	16					SCATTERED	WARM	LT. WIND		5 MPH WIND
03/31/71	1600	18	-12	7					OVERCAST	CHILLY	STRONG		35 MPH WIND

TEMPERATURES (C), EVAPORATION (MM), WIND TRAVEL (KM/DAY)
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE.

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1647 M (MSL) EXCLOSURE E 1/2 SEC 27 T10N R66W, 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN, COLORADO

DATE	MT. ST. TIME	AIR-TEMPERATURE MAX	MIN	OBS	PAN-TEMPERATURE MAX	MIN	EVAP. AMOUNT	WIND TRAVEL	OBSERVATIONS SKY	TEMP.	WIND	PRECIPITATION	GENERAL COMMENTS
04/01/71	1800	6	-3	3					SCATTERED	COLD	STRONG		
04/02/71	1645	16	-12	13					OVERCAST	WARM	LT. WIND		
04/03/71	1730	12	-8	1					OVERCAST	CHILLY	STRONG	LT. SNOW	15 MPH
04/04/71	1715	6	-9	3					SCATTERED	CHILLY	LT. WIND		10 MPH
04/05/71	1745	6	-12	4					CLEAR	CHILLY	LT. WIND		5 MPH
04/06/71	1800	15	-6	12					CLEAR	WARM	LT. WIND		5 MPH
04/07/71	1800	22	-1	16					SCATTERED	WARM	STRONG		5 MPH
04/08/71	1700	16	1	13					OVERCAST	WARM	GUSTY		20 MPH
04/09/71	1700	19	4	15					CLEAR	WARM	LT. WIND		
04/10/71	1700	23	7	21					SCATTERED	WARM	LT. WIND		
04/11/71	1730	22	2	11	14	-2	7.4		SCATTERED	WARM	LT. WIND		INSTLD EVAP PAN
04/12/71	1600	19	0	11	14	-3	5.8		OVERCAST	CHILLY	LT. WIND		
04/13/71	1700	18	-4	12	14	-1	5.8		CLEAR	WARM	LT. WIND		
04/14/71	1600	24	-7	22	19	-2	3.8		SCATTERED	WARM	LT. WIND		8 MPH
04/15/71	1700	24	3	21	21	4	7.4		OVERCAST	WARM	GUSTY		10 MPH
04/16/71	1600	20	2	18	17	3	9.7		OVERCAST	WARM	GUSTY		
04/17/71	1800	24	-6	13			0.0		OVERCAST	WARM	LT. WIND	GENTLE RAIN	20 MPH
04/18/71	1900	22	-5	18			17.0		OVERCAST	WARM	STRONG		28 MPH
04/19/71	1730	17	3	13	12	2			SCATTERED	CHILLY	STRONG		RN..3P/HAIL20MP
04/20/71	1600	12	1	9	12	2			SCATTERED	WARM	LT. WIND		RAIN.3 10 MPH
04/21/71	1730	12	3	7	12	2			OVERCAST	CHILLY	LT. WIND	GENTLE RAIN	5MPH
04/22/71	1800	6	0	6	8	-1			OVERCAST	CHILLY	GUSTY		RAIN .9 8 MPH
04/23/71	1730	11	3	12	12	3			OVERCAST	CHILLY	LT. WIND		12 MPH
04/24/71	1730	13	3										FORGOTTEN
04/25/71	1515	16	4	7	18	4			OVERCAST	CHILLY	LT. WIND	GENTLE RAIN	.3SNO.RA.12MPH
04/26/71	1615	6	0	2	13	-1			OVERCAST	CHILLY	LT. WIND	GENTLE RAIN	.6SNO.RA. 8MPH
04/27/71	1730	11	-5	7	11	-1			OVERCAST	COLD	LT. WIND		16 MPH
04/28/71	1800	13	-2	11	13	-1			SCATTERED	CHILLY	LT. WIND		8 MPH
04/29/71	1800	16	-1	12	14	-1			OVERCAST	CHILLY	LT. WIND		SPRINKLE 10 MPH
04/30/71	1700	20	-1	18	19	-1			SCATTERED	WARM	LT. WIND		DUP EX. H2010MP

TEMPERATURES (C), EVAPORATION (MM), WIND TRAVEL (KM/DAY)
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE.

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1647 M (MSL) EXCLOSURE E 1/2 SEC 27 T10N R66W. 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN. COLORADO

DATE	MT. ST. TIME	MAX AIR TEMP	MIN AIR TEMP	OBS AIR TEMP	WET BULB TEMP	DRY BULB TEMP	MAX PAN TEMP	MIN PAN TEMP	EVAPO-RATION AMOUNT	DAILY WIND TRAVEL	DAILY SOLAR RAD.	PRECIP. AMOUNT	WIND TYPE	HAIL SIZE	SNOW COVER	CLOUD COVER	COMMENTS
05/01/71	1600	22	2	21	9	21	19	1	5.6	14.8			LIGHT			<10%	
05/02/71	1715	23	1	21	11	22	22	3	7.4	11.7			LIGHT			<10%	
05/03/71	1830	25	2	20	12	24	23	7	7.6	13.7			LIGHT			<10%	
05/04/71	1630	21	-1	16			21	7	6.9	17.9			STRONG			>90%	
05/05/71	1600	16	3	5	4	4	16	4		35.4		20.3	STRONG			50%	
05/06/71	1730	8	3	7	6	7	7	3		22.7			LIGHT			>90%	VERY LT. DRIZZLE
05/07/71	1700	13	2	12	8	12	15	2	3.8	8.9			LIGHT			50%	
05/08/71	1600	16	5	12	11	14	16	6	10.9	12.2		10.2	LIGHT			>90%	
05/09/71	1600	14	4	11	5	11	14	4		15.4		17.8	STRONG			>90%	
05/10/71	1600	12	4	8	7	11	12	3	4.3	54.2			STRONG			>90%	
05/11/71	1515	8	4	9	9	5	9	3	3.8	32.8			LIGHT			80%	
05/12/71	1700	16	-2	16	9	16	19	1	3.8	40.4			LIGHT			<10%	
05/13/71	1730	22	1	20	20	10	23	4	7.6	8.0			LIGHT			20%	
05/14/71	1715	22	2	21	21	12	19	7	5.6	16.9			LIGHT			30%	
05/15/71	1830	21	3	14	14	10	19	6	3.8	17.4			LIGHT			20%	LT. RAIN EARLY PM
05/16/71	1630	27	4	19	19	12	22	6	7.6	10.8			STRONG			80%	
05/17/71	1600	18	8	1	7	2	23	2	9.9	36.9			LIGHT			>90%	
05/18/71	1745	12	0	6	6	2	12	-1	3.8	26.7	563.9		LIGHT			80%	VERY LT. DRIZZLE
05/19/71	1715	13	-2	13	12	6	12	-1	6.1	15.6	427.9	2.5	LIGHT			40%	LT. SNOW EARLY AM
05/20/71	1700	20	-4	20	19	8	16	-1	3.3	12.2	613.9		LIGHT			70%	
05/21/71	1600	23	1	23	23	12	23	3	9.9	11.9	778.0		LIGHT			<10%	
05/22/71	1710	23	3	7	6	5	22	6		23.2	503.4	35.6	STRONG		20%	>90%	RAIN,SNOW,HAIL
05/23/71	1720	8	2	8	7	4	7	1		39.7	271.5	2.5	STRONG			60%	VERY LT. DRIZZLE
05/24/71	1630	19	1	18	18	9	16	0	10.7	31.1	685.3		LIGHT			60%	
05/25/71	1600	22	2	2	17	10	21	4	5.8	12.1	586.5		LIGHT			>90%	
05/26/71	1630	21	3	21	20	13	22	6	4.8	12.6	738.9		STRONG			30%	
05/27/71	1730	21	3	18	18	13	21	8	3.8	17.4	587.3		LIGHT			70%	TRACE OF MOISTURE
05/28/71	1630	24	2	19	19	15	24	9	7.4	14.5	627.6		STRONG			70%	
05/29/71	1630	23	0	21	21	13	21	9	7.4	20.1	552.5		STRONG			80%	
05/30/71	1800	21	4	14	14	8	18	8	4.6	22.2	458.4		LIGHT			80%	
05/31/71	1730	21	2	18	18	10	21	4	5.6	11.1	671.8		LIGHT			20%	

TEMPERATURES (C). EVAPORATION (MM). WIND TRAVEL(KM/DAY). RADIATION (LANGLEYS). PRECIPITATION (MM).
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1647 M (MSL) EXCLOSURE E 1/2 SEC 27 T10N R66W, 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN, COLORADO

DATE	MT. ST. TIME	MAX AIR TEMP	MIN AIR TEMP	OBS AIR TEMP	WET BULB TEMP	DRY BULB TEMP	MAX PAN TEMP	MIN PAN TEMP	EVAPO-RATION AMOUNT	DAILY WIND TRAVEL	DAILY SOLAR RAD.	PRECIP. AMOUNT	WIND TYPE	HAIL SIZE	SNOW COVER	CLOUD COVER	COMMENTS
06/01/71	1745	23	4	23	12	23	23	7	6.6	14.2	671.1		LIGHT			30%	
06/02/71	1700	24	8	22	13	22	29	11	6.6	19.3	650.9		LIGHT			70%	BRIEF SHOWER
06/03/71	1700	26	12	26	15	26	26	10	7.1	12.7			LIGHT			50%	
06/04/71	1710	27	-9	18	8	18	23	8	8.4	27.0	436.5		LIGHT			20%	SHORT SHOWER
06/05/71	1700	33	1	22	11	22	22	4	7.6	14.0	650.6					40%	
06/06/71	1730	24	1	18	11	18	20	7	9.4	19.8	614.3		LIGHT			50%	
06/07/71	1650	24	5	21	12	21	23	4	7.6	16.6	699.0		LIGHT			60%	
06/08/71	1655	23	4	17	12	17	23	8	7.4	15.3	535.3		STRONG			>90%	
06/09/71	1645	23	5	18	13	18	23	7	4.1	14.2	354.5					70%	SOLR READ AT 2000
06/10/71	1700	26	6	20	12	20	22	8	6.3	9.2	518.9		LIGHT			60%	
06/11/71	1655	27	5	23	11	23	23	9	6.9	8.2	559.0	0.3	LIGHT			30%	
06/12/71	1630	25	6	19	12	19	24	10	7.1	14.6	571.9		STRONG			70%	
06/13/71	1715	22	11	17	15	17	13	23	0.8	13.2	445.0		LIGHT			20%	
06/14/71	1700	28	8	17	13	17	23	9	7.9	10.6	552.3	5.1				80%	
06/15/71	1700	29	11	25	14	25	26	11	8.6	13.2	741.4		LIGHT			30%	SOLR READ AT DARK
06/16/71	1845	31	9	22	13	22	27	10	7.6	9.3	710.0		LIGHT			30%	SOLR READ AT 2100
06/17/71	1830	31	7	22	13	22	22	11	10.9	9.0	558.3		STRONG			60%	SOLR READ AT 2100
06/18/71	1600	32	12	26	14	26	27	10	7.1	10.8	600.6		LIGHT			80%	SOLR READ AT 2100
06/19/71	1730	33	7	25	14	24	26	10	13.2	15.4	637.9		LIGHT			70%	SOLR READ AT 2100
06/20/71	1700	31	10	26	15	26	27	11	7.6	9.2	627.4		LIGHT			50%	SOLR READ AT 2100
06/21/71	1800	32	25	28	17	29	27	11	9.9	11.7	659.3		LIGHT			20%	SOLR READ AT 2100
06/22/71	1645	32	9	28	18	28	27	13	9.7	9.2	610.6		STRONG			10%	SOLR READ AT 2100
06/23/71	1800	35	9	29	14	29	27	11	14.5	17.2	750.2		LIGHT			30%	SOLR READ AT 2100
06/24/71	1700	35	12	32	17	31	28	11	11.4	12.2	635.8		LIGHT			20%	SOLR READ AT 2100
06/25/71	1700	35	13	34	17	36	30	11	11.9	12.6	764.6		LIGHT			10%	SOLR READ AT 2100
06/26/71	1730	37	11	31	14	31	29	12	17.3	14.0	708.0		LIGHT			60%	SOLR READ AT 2100
06/27/71	1800	34	19	28	14	28	28	11	11.4	13.7	741.0		STRONG			30%	SOLR READ AT 2100
06/28/71	1800	29	12	26	16	26	27	12	11.4	18.3	623.0		LIGHT			50%	SOLR READ AT 2100
06/29/71	1730	27	13	23	14	23	24	12	10.2	19.3	573.4		LIGHT			30%	SOLR READ AT 2100
06/30/71	1730	26	7	24	14	24	26	8	8.9	15.8	568.0		STRONG			50%	SOLR READ AT 2100

TEMPERATURES (C), EVAPORATION (MM), WIND TRAVEL(KM/DAY), RADIATION (LANGLEYS), PRECIPITATION (MM).
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1647 M (MSL) EXCLOSURE E 1/2 SEC 27 T10N R66W, 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN, COLORADO

DATE	MT. ST. TIME	MAX AIR TEMP	MIN AIR TEMP	OBS AIR TEMP	WET BULB TEMP	DRY BULB TEMP	MAX PAN TEMP	MIN PAN TEMP	EVAPO-RATION AMOUNT	DAILY WIND TRAVEL	DAILY SOLAR RAD.	PRECIP. AMOUNT	WIND TYPE	HAIL SIZE	SNOW COVER	CLOUD COVER	COMMENTS
07/01/71	1700	28	7	27	16	26	24	9	7.6	141.6	639.0		STRONG			10%	
07/02/71	1730	32	8	29	15	29	24	10	10.4	149.7	604.9		LIGHT			20%	
07/03/71	1815	34	7	25	14	25	26	10	13.7	154.5	684.6		LIGHT			50%	
07/04/71	2030	29	9	17	12	17	23	14	10.9	152.9	598.2		LIGHT			60%	
07/05/71	1700	30	7	30	15	30	27	9	5.6	78.9	733.1		LIGHT			10%	
07/06/71	1700	33	16	32	16	33	27	11	9.1	80.5	414.5		STRONG			30%	
07/07/71	1700	32	14	23	13	23	24	13	11.2	177.0	479.3		STRONG			60%	
07/08/71	1630	24	6	22	17	24	22	11	6.3	99.8	493.4		LIGHT			50%	
07/09/71	1600	32	13	28	14	27	25	12	7.6	136.8	520.9		STRONG			80%	
07/10/71	1700	34	8	32	16	32	27	9	11.9	125.5	620.0		STRONG			60%	
07/11/71	1700	36	18	34	16	34	29	11	11.9	85.3	776.6		LIGHT			10%	
07/12/71	1700	38	13	36	17	36	29	11	16.0	138.4	776.5		STRONG			10%	
07/13/71	1700	36	18	29	20	29	34	16	10.4	193.1	453.0		LIGHT			30%	
07/14/71	1700	33	13	31	18	31	41	14	3.3	193.1	582.4		LIGHT			50%	
07/15/71	1920	31	12	23	17	23	28	13	10.4	125.5	682.2		LIGHT			10%	
07/16/71	1700	35	11	32	17	32	28	13	9.1	77.2	689.8		STRONG			20%	
07/17/71	1800	37	12	29	16	29	29	13	15.2	125.5	661.7		STRONG			20%	
07/18/71	1900	29	16	19	16	19	26	14	7.9	183.5	455.0	1.3	LIGHT			50%	
07/19/71	1800	22	13	21	15	21	22	13	5.3	125.5	494.7		LIGHT			30%	
07/20/71	1700	29	7	27	14	27	27	10	7.6	72.4	737.8		LIGHT			50%	
07/21/71	1730	28	12	21	17	21	24	12	4.8	78.9	256.3	3.8	LIGHT			70%	
07/22/71	1730	28	14	18	16	18	25	12	6.1	167.4	676.9	0.8	LIGHT			80%	
07/23/71	1930	29	11	24	14	24	27	12	8.6	99.8	648.4		LIGHT			>90%	
07/24/71	1730	29	17	25	16	25	26	11	7.7	96.6	609.5	3.2	LIGHT			10%	
07/25/71	1800	-3	13	18	13	18	24	11	7.9	191.5	535.2	0.3	LIGHT			>90%	
07/26/71	1800	19	10	19	14	19	18	10	3.8	143.2	277.5		LIGHT			80%	
07/27/71	1830	29	9	23	14	23	24	11	8.1	114.3	551.9		LIGHT			30%	
07/28/71	1700	26	10	23	14	23	23	11	7.6	127.1	553.7		LIGHT			70%	
07/29/71	1900	23	7	14	9	13	21	8	1.0	151.3	295.8		LIGHT			40%	
07/30/71	1930	26	2	18	9	18	26	6	7.6	67.6	235.3		LIGHT			20%	
07/31/71	1930	29	8	21	11	21	22	11	13.2	181.9	689.0		LIGHT			20%	

TEMPERATURES (C), EVAPORATION (MM), WIND TRAVEL(KM/DAY), RADIATION (LANGLEYS), PRECIPITATION (MM).
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1647 M (MSL) EXCLOSURE E 1/2 SEC 27 T10N R66W, 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN, COLORADO

DATE	MT. ST. TIME	MAX AIR TEMP	MIN AIR TEMP	OBS AIR TEMP	WET BULB TEMP	DRY BULB TEMP	MAX PAN TEMP	MIN PAN TEMP	EVAPO-RATION AMOUNT	DAILY WIND TRAVEL	DAILY SOLAR RAD.	PRECIP. AMOUNT	WIND TYPE	HAIL SIZE	SNOW COVER	CLOUD COVER	COMMENTS[3]
08/01/71	1800	30	10	24			28	9	11.4	14.3	639.2		LIGHT			40%	
08/02/71	1800	31	10	24			27	10	12.4	14.0	677.8	1.0	LIGHT			80%	
08/03/71	1600	29	8	29	14	29	28	9	7.6	10.8	678.9		LIGHT			50%	
08/04/71	1800	32	12	26	14	26	27	12	10.7	10.1	430.6	0.5	LIGHT			40%	
08/05/71	1700	31	9	29	16	29	27	11	8.1	8.5	620.4		LIGHT			20%	
08/06/71	1600	30	9	27	14	27	26	11	8.9	11.6	624.8		LIGHT			10%	
08/07/71	1730	28	6	26	14	26	27	9	12.0	9.8	710.3		LIGHT			20%	
08/08/71	1900	30	7	22	13	22	27	9	11.4	10.6	671.7		LIGHT			30%	
08/09/71	1700	31	13	21	14	21	25	12	8.1	17.4	439.0	4.1	STRONG			70%	
08/10/71	1800	31	13	28	16	28	31	13	11.4	14.0	585.9		LIGHT			40%	
08/11/71	1815	32	9	27	15	27	27	11	9.7	10.3	582.2		LIGHT			60%	
08/12/71	1800	32	16	23	13	23	24	13	12.2	14.0	398.4		STRONG			>90%	
08/13/71	1600	33	11	32	17	32	28	11	9.7	9.0	599.2		STRONG			50%	
08/14/71	1600	32	9	27	17	27	26	11	11.2	12.4	663.0		STRONG			30%	
08/15/71	1730	30	9	28	16	28	27	11	9.7	16.3	663.7		LIGHT			10%	
08/16/71	1700	32	11	31	17	32	28	12	11.4	13.7	656.1		LIGHT			10%	
08/17/71	1730	33	11	26	16	26	28	12	11.4	13.7	553.6		STRONG			80%	
08/18/71	1800	31	15	26	16	26	24	13	7.6	14.0	340.4		LIGHT			20%	
08/19/71	1730	29	12	23	15	22	25	12	9.7	11.9	510.7		STRONG			50%	
08/20/71	1530	32	9	30	17	30	28	11	4.1	4.7	525.6		LIGHT			30%	
08/21/71	1500	34	11	33	15	33	26	11	9.4	9.3	489.3	0.5	LIGHT			50%	
08/22/71	1800	35	12	28	13	29	27	11	7.6	11.3	655.6		LIGHT			20%	
08/23/71	1700	33	11	21	16	21	24	10	12.0	12.9	327.3	1.5	GUSTY			>90%	
08/24/71	1530	26	8	26	15	24	23	9	8.1	16.3	624.2		LIGHT			10%	
08/25/71	1800	32	2	27	14	27	34	8	8.6	10.9	621.8		LIGHT			30%	
08/26/71	1700	32	12	31	16	31	27	12	8.6	8.7	579.6		LIGHT			70%	
08/27/71	1630	31	14	26	17	26	26	14	8.1	10.9	371.2	0.5	LIGHT			80%	
08/28/71	1700	32	13	27	17	27	27	13	7.4	10.5	518.4		LIGHT			80%	
08/29/71	1830	29	14	22	14	22	26	13	7.9	13.7	457.4		LIGHT			70%	
08/30/71	1700	31	8	26	16	26	26	11	7.6	10.5	604.0		STRONG			60%	
08/31/71	1730	32	12	29	14	29	26	12	12.2	12.9	622.8		LIGHT			10%	

TEMPERATURES (C), EVAPORATION (MM), WIND TRAVEL(KM/DAY), RADIATION (LANGLEYS), PRECIPITATION (MM).
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1647 M (MSL) EXCLOSURE E 1/2 SEC 27 T10N R66W, 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN, COLORADO

DATE	MT. ST. TIME	MAX AIR TEMP	MIN AIR TEMP	OBS AIR TEMP	WET BULB TEMP	DRY BULB TEMP	MAX PAN TEMP	MIN PAN TEMP	EVAPO-RATION AMOUNT	DAILY WIND TRAVEL	DAILY SOLAR RAD.	PRECIP. AMOUNT	WIND TYPE	HAIL SIZE	SNOW COVER	CLOUD COVER	COMMENTS
09/01/71	1730	32	9	29	14	29	26	10	9.1	11.4	615.5		LIGHT			50%	
09/02/71	1730	34	10	29	15	29	24	10	17.8	13.2	576.2		STRONG			40%	
09/03/71	1630	29	7	17	10	17	22	11	7.4	14.0	534.9		STRONG			>90%	
09/04/71	1930	19	6	12	7	12	16	6	7.4	33.2	492.6	3.8	LIGHT			20%	
09/05/71	1730	27	3	25	11	25	21	5	11.4	25.6	606.0		LIGHT			50%	
09/06/71	1830	30	3	24	9	24	23	6	9.4	11.4	615.3		LIGHT			10%	
09/07/71	1700	34	8	13	12	13	23	8	7.1	13.7	383.6	3.3	STRONG			>90%	LIGHT SPRINKLE
09/08/71	1700	18	8	18	13	18	20	8	18.5	14.8	444.4	18.5	LIGHT			30%	
09/09/71	1800	27	6	20	7	20	24	5	8.6	7.9	593.9		LIGHT			20%	
09/10/71	1630	28	10	27	14	27	28	9	9.7	14.3	600.2		LIGHT			10%	
09/11/71	1830	29	7	22	13	22	26	8	5.8	7.6	574.8		LIGHT			20%	
09/12/71	1800	25	13	21	11	22	23	8	11.4	17.1	582.8		LIGHT			10%	
09/13/71	1830	27	7	22	11	23	24	7	7.6	11.4	581.1		LIGHT			10%	
09/14/71	1730	23	3	16	7	16	19	4	9.1	15.3	582.2		LIGHT			50%	
09/15/71	1730	17	1	14	6	14	17	3	7.6	14.0	521.1		LIGHT			70%	
09/16/71	1730	4	1	2	1	1	14	2	10.2	6.4	89.4	10.2	LIGHT		20%	>90%	SNOWING
09/17/71	1600	1	-1	1	1	1	3	-1	14.7	15.1	289.3	14.7	LIGHT		80%	>90%	SNOW-4 IN. GRN.
09/18/71	1700	7	-6	3	1	2	11	-1	3.8	5.1	479.7	3.8	LIGHT		60%	30%	.17 OUT OF PAN
09/19/71	1800	11	-7	7	3	7	13	-1	2.3	10.1	609.8		LIGHT		10%	40%	
09/20/71	1800	18	-1	13	7	8	15	-1	3.8	5.8	336.2		LIGHT			>90%	
09/21/71	1630	12	0	2	2	2	12	0	2.5	27.7	108.8	2.5	LIGHT			>90%	
09/22/71	1615	14	-3	13	8	13	14	-1	2.5	7.6	507.8	1.3	LIGHT			10%	
09/23/71	1800	18	-2	12	7	13	18	0	3.8	6.6	565.4		LIGHT			10%	
09/24/71	1600	21	-1	21	13	21	19	1	6.9	7.7	538.4		LIGHT			10%	
09/25/71	1630	24	1	23	11	23	19	1	5.8	10.9	543.3		LIGHT			10%	
09/26/71	1700	24	7	22	13	21	19	5	10.2	11.9	511.6		LIGHT			10%	
09/27/71	1800	22	4	16	9	14	18	3	6.9	15.1	465.9		LIGHT			30%	
09/28/71	1730	17	4	15	8	14	16	4	3.8	21.7	482.6		LIGHT			70%	
09/29/71	1730	16	1	12	8	12	14	2	3.8	9.0	221.4		LIGHT			>90%	
09/30/71	1730	22	6	17	12	17	19	7	2.8	9.8	441.8	0.8	LIGHT			10%	

TEMPERATURES (C), EVAPORATION (MM), WIND TRAVEL(KM/DAY), RADIATION (LANGLEYS), PRECIPITATION (MM).
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1647 M (MSL) EXCLOSURE E 1/2 SEC 27 T10N R66W, 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN, COLORADO

DATE	MT. ST. TIME	MAX AIR TEMP	MIN AIR TEMP	OBS AIR TEMP	WET BULB TEMP	DRY BULB TEMP	MAX PAN TEMP	MIN PAN TEMP	EVAPO-RATION AMOUNT	DAILY WIND TRAVEL	DAILY SOLAR RAD.	PRECIP. AMOUNT	WIND TYPE	HAIL SIZE	SNOW COVER	CLOUD COVER	COMMENTS
10/01/71	1730	19	3	6	3	6	17	4	1.5	23.8	240.6	4.6	LIGHT			>90%	.12 OUT OF PAN
10/02/71	1930	13	2	6	2	6	12	-1		27.0	400.1		LIGHT			70%	
10/03/71	1630	18	-1	12	6	12	12	0	3.0		488.4		LIGHT			20%	
10/04/71	1700	21	-1	17	8	17	18	0	4.6	4.8	481.8		LIGHT			10%	
10/05/71	1800	26	3	12	7	12	19	9	0.0	6.1	793.9		LIGHT			10%	
10/06/71	1800	24	3	16	9	16	21	4	3.8	4.2	476.2		LIGHT			10%	
10/07/71	1630	24	4	18	11	18	19	5	6.9	18.0	948.4		STRONG			10%	
10/08/71	1730	18	1	11	3	11	16	3	6.1	17.5	403.9		STRONG			50%	
10/09/71	1700	22	-1	18	10	18	17	-2	7.6	20.1	463.9		LIGHT			10%	
10/10/71	1730	27	0	19	8	19	19	3	10.2	17.4	461.3		LIGHT			10%	
10/11/71	1700	26	2	24	10	24	18	3	5.3	9.3	433.6		LIGHT			10%	
10/12/71	1700	23	2	14	6	14	18	6	4.8	26.4	435.1		STRONG			20%	
10/13/71	1630	20	-3	16	8	16	14	-1	6.6	6.8	366.0		LIGHT			80%	
10/14/71	1600	20	4	20	10	20	17	3	6.1	14.0	439.2		LIGHT			20%	
10/15/71	1600	19	-1	11	7	11	16	1	3.8	14.8	246.1		LIGHT			30%	
10/16/71	1615	11	3	9	7	8	11	5	0.8	11.1	119.6		LIGHT			>90%	
10/17/71	1730	19	2	11	9	11	16	4	1.8	10.6	302.7	0.5	LIGHT			>90%	
10/18/71	1630	13	2	10	3	10	13	3	5.8	23.2	418.4	2.5	STRONG			40%	
10/19/71	1700	12	1	11	4	11	4	11	5.6	23.2	425.8		LIGHT			10%	
10/20/71	1700	17	-5	13	6	14	14	-1	2.8	7.1	416.6		LIGHT			10%	
10/21/71	1700	19	-2	11	6	11	13	-1	2.8	9.0	233.5		STRONG			>90%	
10/22/71	1700	14	3	11	5	11	16	3	3.8	15.8	395.1		LIGHT			10%	
10/23/71	1700	15	-4	12	6	12	14	-1	1.8	6.1	370.6		LIGHT			60%	
10/24/71	1630	20	-2	16	5	16	16	-1	3.6	6.6	366.0		LIGHT			80%	
10/25/71	1630	21	2	17	8	17	17	4	6.6	12.1	384.3		LIGHT			10%	
10/26/71	1600	19	-1	13	7	13	16	0	3.3	11.6	344.0		LIGHT			70%	
10/27/71	1600	13	3	10	6	10	13	0		14.2	380.2		LIGHT			20%	WATER STOR EMPTY
10/28/71	1600	9	-7	-6	-7	-7				33.3	86.6		LIGHT			>90%	1/2 IN ICE S IN P
10/29/71	1700	-8	-11	-8						19.0	210.8		LIGHT		70%	>90%	1 IN ICE 3 IN S
10/30/71	1600	2	-13	0						26.9	227.5	1.3	LIGHT		60%	10%	2 IN ICE IN PAN
10/31/71	1630	8	-9	7						6.4	375.3		LIGHT			60%	SNOW GONE

TEMPERATURES (C), EVAPORATION (MM), WIND TRAVEL(KM/DAY), RADIATION (LANGLEYS), PRECIPITATION (MM).
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1647 M (MSL) EXCLOSURE E 1/2 SEC 27 T10N R66W. 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN, COLORADO

DATE	MT. ST. TIME	MAX AIR TEMP	MIN AIR TEMP	OBS AIR TEMP	WET BULB TEMP	DRY BULB TEMP	MAX PAN TEMP	MIN PAN TEMP	EVAPO-RATION AMOUNT	DAILY WIND TRAVEL	DAILY SOLAR RAD.	PRECIP. AMOUNT	WIND TYPE	HAIL SIZE	SNOW COVER	CLOUD COVER	COMMENTS
11/01/71	1600	11	-3	10	3	10	-18	-18	9.1	18.2	379.6		LIGHT			20%	RESET E PAN THERM
11/02/71	1630	9	-12	3	-3	3	2	-1	0.0	38.9	388.1		STRONG			20%	ICE IN E PAN
11/03/71	1600	16	-10	13	4	13	3	-1	3.8	15.4	334.7		LIGHT			50%	SAME AS ABOVE
11/04/71	1700	21	-2	10	2	11	12	-1	3.6	17.2	361.4		LIGHT			10%	ICE IN PAN MELTED
11/05/71	1600	9	-4	-2			9	-1	0.5	22.2	185.4	0.5	LIGHT		10%	60%	1/2 IN ICE ON PAN
11/06/71	1700	4	-13	-1						5.1	386.0		LIGHT			10%	FROZE UP
11/07/71	1700	12	-13	0							358.3		LIGHT			10%	FROZE UP
11/08/71	1700	14	-6	5						18.0	183.3		LIGHT			10%	ACCUM 1 DAYS
11/09/71	1630	8	-8	6	0	4				4.0	143.5		LIGHT			60%	FROZE UP
11/10/71	1700	22	-3	13	1	7	11	-1	11.4	15.3	329.1		LIGHT			10%	ICE MELTED
11/11/71	1600	19	-1	12	3	10	14	-2	3.8	6.8	256.1		LIGHT			>90%	
11/12/71	1600	19	2	13	3	8	11	2	1.5	5.3	138.3		LIGHT			80%	
11/13/71	1630	13	-6	9	2	6	9	-2	3.8	28.3	184.3		STRONG			20%	
11/14/71	1700	11	-7	7	-1	4	8	-6	6.1	12.2	323.5		LIGHT			10%	
11/15/71	1700	9	-6	6	1	5	7	-2	0.0	10.3	117.8		LIGHT			>90%	
11/16/71	1630	6	1	1	1	2	2	0	0.0	22.5	61.9		LIGHT			>90%	LIGHT MIST
11/17/71	1630	0	-5	-4						32.2	112.0		GUSTY			20%	PAN FROZEN
11/18/71	1630	0	-13	-4						13.8	250.4		LIGHT			50%	PAN FROZEN
11/19/71	1630	10	-19	4						10.3	298.7		LIGHT			10%	PAN STORED FOR W
11/20/71	1630	18	-7	11	4	11				24.8	297.0		LIGHT			<10%	
11/21/71	1700	11	-6	4	1	2				14.3	289.9		LIGHT			20%	
11/22/71	1600	10	-8	8	3	6				14.8	158.1		STRONG			>90%	
11/23/71	1630	7	-8	-1						18.8	139.7		LIGHT			40%	
11/24/71	1630	14	-10	7	-1	3				5.3	238.6		LIGHT			30%	
11/25/71	1700	12	-6	9	2	5				10.3	234.3		STRONG			20%	
11/26/71	1600	9	-11	5						41.5			LIGHT			10%	
11/27/71	1700	23	4	5						18.2	66.3		STRONG			>90%	
11/28/71	1600	4	-9	2						20.6	197.7		LIGHT			70%	
11/29/71	1630	4	-14	-1						6.1	259.7		LIGHT			30%	
11/30/71	1630	5	-10	1						6.3	153.3		LIGHT			10%	

TEMPERATURES (C), EVAPORATION (MM), WIND TRAVEL (KM/DAY), RADIATION (LANGLEYS), PRECIPITATION (MM).
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE

STANDARD WEATHER OBSERVATIONS PAWNEE SITE US-IBP GRASSLAND BIOME
ELE. 1647 M (MSL) EXCLOSURE E 1/2 SEC 27 T10N R66W, 6TH P. M. CENTRAL PLAINS EXPERIMENTAL RANGE NUNN, COLORADO

DATE	MT. ST. TIME	MAX AIR TEMP	MIN AIR TEMP	OBS AIR TEMP	WET BULB TEMP	DRY BULB TEMP	MAX PAN TEMP	MIN PAN TEMP	EVAPO-RATION AMOUNT	DAILY WIND TRAVEL	DAILY SOLAR RAD.	PRECIP. AMOUNT	WIND TYPE	HAIL SIZE	SNOW COVER	CLOUD COVER	COMMENTS
12/01/71	1630	-1	-7	-3						9.2	69.7		LIGHT		30%	>90%	HALF IN. SNOW
12/02/71	1600	-3	-6	-3						10.1	72.9		LIGHT		20%	>90%	HALF IN. SNOW
12/03/71	1630	-4	-7	-5						6.8	85.9		LIGHT		10%	>90%	TRACE
12/04/71	1630	2	-13	-3						14.3	268.3		LIGHT			20%	TRACE
12/05/71	1600	3	-18	2	-2	3				4.0	190.5		LIGHT			80%	SNOW GONE
12/06/71	1630	7	-12	4	0	3				11.4	169.0		LIGHT			80%	
12/07/71	1630	3	-14	-13						38.9	106.6		STRONG		10%	>90%	LT. GROUND COVER
12/08/71	1600	-11	-19	-11						16.9	254.6		LIGHT			20%	TRACE
12/09/71	1630	8	-20	3	-1	2				5.6	265.8		LIGHT			30%	
12/10/71	1630	3	-15	-2						33.6	276.7		STRONG			40%	
12/11/71	1700	4	-15	-2						16.6	234.3		LIGHT			50%	
12/12/71	1630	2	-15	-3						17.2	230.0		LIGHT			>90%	
12/13/71	1600	3	-12	0						10.3	126.4		LIGHT			>90%	
12/14/71	1630	1	-16	-3						7.7	273.2		LIGHT			30%	
12/15/71	1700	2	-11	-6						31.2	229.2		LIGHT			30%	
12/16/71	1630	0	-14	-2						17.7	264.8		LIGHT			10%	
12/17/71	1700	11	-14	-2						6.3	253.6		LIGHT			10%	
12/18/71	1630	11	-10	2						6.6	108.7		LIGHT			80%	
12/19/71	1700	7	-3	-2						16.7	247.1		LIGHT			70%	
12/20/71	1700	9	-6	-1						23.2	213.3		LIGHT			20%	
12/21/71	1630	11	2	3	-2	1				9.7	242.4		LIGHT			30%	
12/22/71	1600	12	-4	5	-2	5				4.2	153.7		LIGHT			40%	
12/23/71	1615	16	-7	11	3	14				27.2	225.9		STRONG			20%	
12/24/71	1600	12	-8	7	2	7				19.5	232.2		LIGHT			80%	
12/25/71	1700	17	-7	9	3	9				15.1	235.9		LIGHT			30%	
12/26/71	1615	9	-4	-1						6.8	220.4		LIGHT			30%	
12/27/71	1620	12	-14	2						22.5	283.0		STRONG			<10%	
12/28/71	1600	11	-13	6	-2	3				8.7	256.3		LIGHT			40%	
12/29/71	1600	7	-14	2						23.3	231.6		STRONG			20%	
12/30/71	1620	4	-15	-2						34.6	238.0		STRONG			20%	
12/31/71	1620	11	-16	8	1	9				17.4	254.6		STRONG			50%	

TEMPERATURES (C), EVAPORATION (MM), WIND TRAVEL(KM/DAY), RADIATION (LANGLEYS), PRECIPITATION (MM).
TEMPERATURES MEASURED AT +1.5 M AND WIND TRAVEL MEASURED AT +0.5 M ABOVE SOIL SURFACE

APPENDIX E

Daily Maxima and Minima of Temperature, Humidity, and Pressure

Pawnee Climatic Station

May, 1970 - December, 1971

JANUARY 1971

STA	MO	DA	YR	MAX TEM	MIN TEM	MAX RH	MIN RH	MAX BAR	MIN BAR
LYSTM	01	01	71	038	022	100	056	934	931
LYSTM	01	03	71	010	002	100	082	938	930
LYSTM	01	04	71	007	008	096	066	938	935
LYSTM	01	05	71	006	009	080	059	938	936
LYSTM	01	06	71	035	012	086	046	939	935
LYSTM	01	09	71	041	024	100	060	935	927
LYSTM	01	10	71	048	022	094	045	927	922
LYSTM	01	11	71	034	011	100	074	933	928
LYSTM	01	12	71	019	006	100	100	931	924
LYSTM	01	13	71	033	010	100	050	931	923
LYSTM	01	14	71	032	012	100	058	941	931
LYSTM	01	15	71	044	016	087	044	945	939
LYSTM	01	16	71	048	028	100	046	940	936
LYSTM	01	17	71	055	034	100	060	936	932
LYSTM	01	18	71	041	024	100	068	942	936
LYSTM	01	19	71	052	024	100	043	941	933
LYSTM	01	20	71	063	032	100	028	935	926
LYSTM	01	21	71	044	027	094	029	935	926
LYSTM	01	22	71	038	019	100	030	932	926
LYSTM	01	23	71	040	025	083	045	928	926
LYSTM	01	24	71	047	026	072	032	929	927
LYSTM	01	25	71	048	025	072	036	939	927
LYSTM	01	26	71	057	026	100	037	944	936
LYSTM	01	27	71	054	026	100	036	943	940
LYSTM	01	28	71	057	028	094	028	940	935
LYSTM	01	29	71	063	038	046	024	934	929
LYSTM	01	30	71	062	020	100	034	931	926
LYSTM	01	31	71	046	019	100	054	939	930

FEBRUARY 1971

STA	MO	DA	YR	MAX TEM	MIN TEM	MAX RH	MIN RH	MAX BAR	MIN BAR
LYSTM	02	01	71	035	019	100	067	940	931
LYSTM	02	02	71	050	020	100	053	931	925
PYSTM	02	03	71	030	019	100	080	933	924
LYSTM	02	04	71	036	014	090	040	932	924
LYSTM	02	05	71	029	011	100	070	932	923
LYSTM	02	06	71	017	003	100	090	932	929
LYSTM	02	07	71	026	012	100	070	935	930
LYSTM	02	08	71	028	011	100	073	940	930
LYSTM	02	09	71	052	011	100	022	940	935
LYSTM	02	10	71	056	034	070	035	935	928
LYSTM	02	11	71	046	025	100	050	944	928
LYSTM	02	12	71	060	016	100	028	945	940
LYSTM	02	13	71	062	024	100	024	940	932
LYSTM	02	14	71	051	023	100	038	937	933
LYSTM	02	15	71	057	024	100	030	933	925

STA	MO	DA	YR	MAX TEM	MIN TEM	MAX RH	MIN RH	MAX BAR	MIN BAR
LYSIM	02	16	71	046	019	087	020	935	929
LYSIM	02	17	71	053	019	100	035	936	928
LYSIM	02	18	71	040	031	100	070	928	925
LYSIM	02	19	71	045	023	100	046	933	928
LYSIM	02	20	71	024	007	100	110	938	934
LYSIM	02	21	71	018	005	100	070	938	934
LYSIM	02	22	71	033	002	100	047	934	927
LYSIM	02	23	71	034	002	100	048	930	927
LYSIM	02	24	71	042	006	100	048	929	924
LYSIM	02	25	71	049	017	100	040	924	915
LYSIM	02	26	71	032	015	066	046	932	922
LYSIM	02	27	71	030	003	100	030	934	930
LYSIM	02	28	71	033	003	100	026	930	923

MARCH 1971

STA	MO	DA	YR	MAX TEM	MIN TEM	MAX RH	MIN RH	MAX BAR	MIN BAR
LYSIM	03	01	71	027	008	100	045	935	927
LYSIM	03	02	71	028	004	100	038	938	933
LYSIM	03	03	71	049	004	100	027	933	923
LYSIM	03	04	71	052	023	100	030	923	918
LYSIM	03	05	71	027	006	100	090	936	918
LYSIM	03	06	71	024	001	100	066	942	936
LYSIM	03	07	71	036	002	100	050	942	933
LYSIM	03	08	71	042	009	100	054	933	930
LYSIM	03	09	71	043	014	100	046	934	932
LYSIM	03	10	71	046	020	100	044	933	929
LYSIM	03	11	71	049	023	100	046	930	929
LYSIM	03	12	71	054	028	100	045	930	924
LYSIM	03	13	71	058	024	100	032	924	915
LYSIM	03	14	71	042	029	063	035	932	921
LYSIM	03	15	71	045	022	100	036	939	932
LYSIM	03	16	71	045	022	100	024	941	936
LYSIM	03	17	71	050	020	100	038	936	923
LYSIM	03	18	71	031	019	100	035	942	935
LYSIM	03	19	71	045	018	090	025	942	939
LYSIM	03	20	71	059	015	100	016	939	927
LYSIM	03	21	71	051	025	100	036	939	932
LYSIM	03	22	71	028	021	100	100	940	935
LYSIM	03	23	71	041	020	100	074	936	933
LYSIM	03	24	71	039	023	100	086	931	927
LYSIM	03	25	71	052	017	100	032	934	930
LYSIM	03	26	71	073	027	100	026	934	926
LYSIM	03	27	71	063	036	100	026	935	926
LYSIM	03	28	71	052	021	100	030	943	935
LYSIM	03	29	71	060	021	100	022	943	937
LYSIM	03	30	71	074	027	100	018	937	922
LYSIM	03	31	71	056	023	100	034	938	919

APRIL 1971

STA	MO	DA	YR	MAX TEM	MIN TEM	MAX RH	MIN RH	MAX BAR	MIN BAR
LYSIM	04	01	71	040	014	100	028	944	942
LYSIM	04	02	71	057	013	100	021	944	936
LYSIM	04	03	71	043	028	100	050	946	936
LYSIM	04	04	71	044	017	100	032	947	945
LYSIM	04	05	71	042	013	100	035	948	938
LYSIM	04	06	71	051	014	100	018	938	928
LYSIM	04	07	71	068	020	100	016	936	930
LYSIM	04	08	71	057	013	100	038	944	938
LYSIM	04	09	71	065	020	100	024	938	931
LYSIM	04	10	71	072	030	100	020	941	933
LYSIM	04	11	71	054	030	100	032	945	934
LYSIM	04	12	71	065	028	100	027	948	941
LYSIM	04	13	71	051	022	100	042	941	930
LYSIM	04	14	71	074	023	100	019	930	923
LYSIM	04	15	71	074	039	076	022		
LYSIM	04	16	71	064	035	098	038		
LYSIM	04	17	71	075	046	100	028	924	917
LYSIM	04	18	71	071	038	100	020	927	920
LYSIM	04	19	71	058	038	100	043	927	923
LYSIM	04	20	71	050	036	100	052	924	921
LYSIM	04	21	71	053	037	100	056	927	923
LYSIM	04	22	71	043	033	100	100	936	927
LYSIM	04	23	71	050	037	100	072	936	929
LYSIM	04	24	71	058	040			929	926
LYSIM	04	25	71	046	033			936	930
LYSIM	04	26	71	035	030	100		932	927
LYSIM	04	27	71	051	024	100	050	932	928
LYSIM	04	28	71	056	029	100	034	932	930
LYSIM	04	29	71	060	032	100	030	936	931
LYSIM	04	30	71	068	034	100	024	940	937

MAY 1971

STA	MO	DA	YR	MAX TEM	MIN TEM	MAX RH	MIN RH	MAX BAR	MIN BAR
LYSIM	05	01	71	072	038	100	022	941	938
LYSIM	05	02	71	073	036	100	026	941	936
LYSIM	05	03	71	077	043	100	022		
LYSIM	05	04	71	068	044	100	052	926	923
LYSIM	05	05	71	052	039	100	056	932	920
LYSIM	05	06	71	048	040	100	068	938	931
LYSIM	05	07	71	054	036	100	04-	940	938
LYSIM	05	08	71	060	040	100	064	939	930
LYSIM	05	09	71	058	039	100	056	935	929
LYSIM	05	10	71	053	041	100	062	944	935
LYSIM	05	11	71	048	038	100	060	948	945
LYSIM	05	12	71	060	030	100	050	942	939
LYSIM	05	13	71	070	035	100	030	938	932

LYSIM	05	14	71	070	042	100	033	935	932
LYSIM	05	15	71	070	042	100	033	937	935
LYSIM	05	16	71	080	039	100	022	935	925
LYSIM	05	17	71	050	034	100	040	932	929
LYSIM	05	18	71	054	033	100	040	937	932
LYSIM	05	19	71	056	031	100	037	937	935
LYSIM	05	20	71	068	030	100	052	936	932
LYSIM	05	21	71	053	038	100	056	932	926
LYSIM	05	22	71	067	039	100	048	930	924
LYSIM	05	23	71	048	036	100	056	935	929
LYSIM	05	24	71	067	037	100	032	937	934
LYSIM	05	25	71	072	037	100	032	939	935
LYSIM	05	26	71	070	039	100	048	941	938
LYSIM	05	27	71	070	046	100	056	939	937
LYSIM	05	28	71	076	048	100	046	938	932
LYSIM	05	29	71	073	050	100	038	934	926
LYSIM	05	30	71	063	044	100	040	930	924
LYSIM	05	31	71	070	039	100	030	936	925

JUNE 1971

STA	DATE MO	DA	YR	MAX TEM	MIN TEM	MAX RH	MIN RH	MAX BAR	MIN BAR
LYSIM	06	01	71	074	042	100	032	938	934
LYSIM	06	02	71	075	050	100	030	936	934
LYSIM	06	03	71	078	055	100	032	936	931
LYSIM	06	04	71	068	043	100	032	939	932
LYSIM	06	05	71	076	035	100	022	940	935
LYSIM	06	06	71	074	044	088	030	937	934
LYSIM	06	07	71	075	040	100	030	940	937
LYSIM	06	08	71	074	042	100	038	940	934
LYSIM	06	09	71	073	042	100	034	935	931
LYSIM	06	10	71	078	045	100	030	933	931
LYSIM	06	11	71	080	042	100	028	937	934
LYSIM	06	12	71	076	051	100	042	940	937
LYSIM	06	13	71	072	048	100	050	939	936
LYSIM	06	14	71	083	046	100	026	937	935
LYSIM	06	15	71	085	052	100	026	846	836
LYSIM	06	16	71	089	048	100	020	846	842
LYSIM	06	17	71	088	048	085	026	844	841
LYSIM	06	18	71	089	053	096	026	845	843
LYSIM	06	19	71	091	050	100	022	849	844
LYSIM	06	20	71	087	052	100	032	852	847
LYSIM	06	21	71	090	048	100	024	851	849
LYSIM	06	22	71	088	052	100	033	850	845
LYSIM	06	23	71	096	050	100	014	845	842
LYSIM	06	24	71	095	056	098	022	844	842
LYSIM	06	25	71	096	057	100	020	845	841
LYSIM	06	26	71	098	054	100	018		
LYSIM	06	27	71	093	051	095	022		
LYSIM	06	28	71	082	056	100	036		
LYSIM	06	29	71	080	050	100	038		
LYSIM	06	30	71	078	048	100	032	852	848

JULY 1971

STA	DATE MO	DA	YR	MAX TEM	MIN TEM	MAX RH	MIN RH	MAX BAR	MIN BAR
LYSIM	07	01	71	082	047	100	035	852	847
LYSIM	07	02	71	088	051	100	026	847	844
LYSIM	07	03	71	093	052	094	026	846	843
LYSIM	07	04	71	085	051	100	030	849	844
LYSIM	09	05	71	080	048	060	022	843	842
LYSIM	07	06	71	096	050	100	016	844	841
LYSIM	07	07	71	083	052	089	038	852	842
LYSIM	07	08	71	077	047	098	050	853	849
LYSIM	07	09	71	090	056	100	026	851	847
LYSIM	07	10	71	094	048	100	020	847	844
LYSIM	07	11	71	097	055	100	010	846	843
LYSIM	07	12	71	100	057	096	014	848	844
LYSIM	07	13	71	085	066	100	050	851	847
LYSIM	07	14	71	091	057	100	030	848	846
LYSIM	07	15	71	086	054	100	036	849	846
LYSIM	07	16	71	095	053	100	020	848	846
LYSIM	07	17	71	099	056	100	022	851	846
LYSIM	07	18	71	084	060	100	040	852	849
LYSIM	07	19	71	071	050	100	060	854	851
LYSIM	07	20	71	084	046	100	028	850	846
LYSIM	07	21	71	080	054	100	044	847	845
LYSIM	07	22	71	076	056	100	040	848	847
LYSIM	07	23	71	084	055	100	033	849	846
LYSIM	07	24	71	085	050	100	034	846	843
LYSIM	07	25	71	076	052	100	045	851	846
LYSIM	07	26	71	066	050	100	066	851	847
LYSIM	07	27	71	084	049	100	020	851	844
LYSIM	07	28	71	077	047	100	044	852	844
LYSIM	07	29	71	062	042	100	066	853	851
LYSIM	07	30	71	079	037	100	028	853	846
LYSIM	07	31	71	084	051	085	016	850	846

AUGUST 1971

STA	DATE MO	DA	YR	MAX TEM	MIN TEM	MAX RH	MIN RH	MAX BAR	MIN BAR
LYSIM	08	01	71	087	054	100	030	851	849
LYSIM	08	02	71	087	051	100	022	849	846
LYSIM	08	03	71	086	048	100	027	847	845
LYSIM	08	04	71	089	052	090	030	849	845
LYSIM	08	05	71	087	051	100	032	850	849
LYSIM	08	06	71	082	050	100	030	850	847
LYSIM	08	07	71	082	045	100	028	848	845
LYSIM	08	08	71	087	046	100	026	847	845

LYSIM	08	12	71	089	058	082	032	845	843
LYSIM	08	13	71	091	054	100	034	848	843
LYSIM	08	14	71	083	050	100	040	850	847
LYSIM	08	15	71	085	050	100	033	849	846
LYSIM	08	16	71	090	053	100	024	848	845
LYSIM	08	17	71	092	054	100	030	847	845
LYSIM	08	18	71	086	060	100	038	846	844
LYSIM	08	19	71	084	054	100	038	849	848
LYSIM	08	20	71	090	050	100	030	847	844
LYSIM	08	21	71	094	052	100	019	845	844
LYSIM	08	22	71	094	054	079	022	844	842
LYSIM	08	23	71	092	053	099	032	851	842
LYSIM	08	24	71	077	048	100	041	854	850
LYSIM	08	25	71	089	051	100	030	849	847
LYSIM	08	26	71	090	055	100	033	849	846
LYSIM	08	27	71	088	057	100	033	849	847
LYSIM	08	28	71	088	056	100	035	849	847
LYSIM	08	29	71	084	058	100	038	849	845
LYSIM	08	30	71	087	051	100	030	847	844
LYSIM	08	31	71	090	054	094	026	845	842

SEPTEMBER 1971

STA	DATE			MAX	MIN	MAX	MIN	MAX	MIN	
	MO	DA	YR	TEM	TEM	RH	RH	BAR	BAR	
LYSIM	09	01	71	090	051	097	026	843	841	
LYSIM	09	02	71	091	055	075	028	841	837	
LYSIM	09	03	71	081	048	100	040	843	837	
LYSIM	09	04	71	064	040	100	036	843	842	
KYSIM	09	05	71	080	048	060	022	036	843	842
LYSIM	09	06	71	086	040	086	020	847	844	
LYSIM	09	07	71	080	046	100	024	849	845	
LYSIM	09	08	71	062	048	100	034	851	849	
LYSIM	09	09	71	080	046	100	024	849	845	
LYSIM	09	10	71	082	052	094	028	850	847	
LYSIM	09	11	71	088	046	100	024	850	846	
LYSIM	09	12	71	078	056	098	030	854	847	
LYSIM	09	13	71	090	046	100	022	850	843	
LYSIM	09	14	71	064	038	100	036	848	843	
LYSIM	09	15	71	052	036	100	064	848	843	
LYSIM	09	16	71	064	046	100	036	855	853	
LYSIM	09	17	71	064	034	100	042	857	854	
LYSIM	09	18	71	064	032	100	038	857	851	
LYSIM	09	19	71	036	030	100	100	851	843	
LYSIM	09	20	71	046	024	100	072	850	842	
LYSIM	09	21	71	052	021	100	042	851	850	
LYSIM	09	22	71	066	032	100	050	852	851	
LYSIM	09	23	71	036	032	100	100	852	850	
LYSIM	09	24	71	058	028	100	050	842	835	
LYSIM	09	25	71	064	034	100	040	838	835	
LYSIM	09	26	71	075	046	082	026	839	835	
LYSIM	09	27	71	072	040	090	034	844	839	
LYSIM	09	28	71	062	042	100	046	842	832	
LYSIM	09	29	71	060	034	100	054	834	832	
LYSIM	09	30	71	070	044	100	060	840	832	

OCTOBER 1971

STA	MO	DA	YR	MAX TEM	MIN TEM	MAX RH	MIN RH	MAX BAR	IN BAR
LYSIM	10	01	71	062	036	100	048		
LYSIM	10	02	71						
LYSIM	10	03	71						
LYSIM	10	04	71						
LYSIM	10	05	71						
LYSIM	10	06	71						
LYSIM	10	07	71						
LYSIM	10	08	71						
LYSIM	10	09	71						
LYSIM	10	10	71						
LYSIM	10	11	71						
LYSIM	10	12	71						
LYSIM	10	13	71						
LYSIM	10	14	71						
LYSIM	10	15	71						
LYSIM	10	16	71						
LYSIM	10	17	71						
LYSIM	10	18	71						
LYSIM	10	19	71	064	034	100	038	848	840
LYSIM	10	20	71	062	026	100	028	850	848
LYSIM	10	21	71	066	030	100	026	853	847
LYSIM	10	22	71	056	030	100	050	853	849
LYSIM	10	23	71	058	026	100	042	849	838
LYSIM	10	24	71	068	030	100	030	839	836
LYSIM	10	25	71	070	040	100	028	838	836
LYSIM	10	26	71	060	034	100	038	836	826
LYSIM	10	27	71	056	024	100	044	838	828
LYSIM	10	28	71	026	014	100	100	849	838
LYSIM	10	29	71	020	014	100	100	849	840
LYSIM	10	30	71	032	016	100	100	840	836
LYSIM	10	31	71	048	018	100	064	840	837

NOVEMBER 1971

STA	MO	DA	YR	MAX TEM	MIN TEM	MAX RH	MIN RH	MAX BAR	MIN BAR
LYSIM	11	01	71	052	028	100	030	841	838
LYSIM	11	02	71	040	028	052	032	849	842
LYSIM	11	03	71	060	018	090	024	852	847
LYSIM	11	04	71	070	035	074	022	847	836
LYSIM	11	05	71	040	014	100	050	848	836
LYSIM	11	06	71	040	012	100	052	854	848
LYSIM	11	07	71	054	014	100	030	854	839
LYSIM	11	08	71	050	028	090	040	849	839
LYSIM	11	09	71					850	849
LYSIM	11	10	71					849	840
6YSIM	11	11	71	066	032	070	026	840	836
LYSIM	11	12	71	066	038	068	026	836	830

LYSIM	11	13	71	054	024	090	048	840	836
LYSIM	11	14	71	052	020	100	040	844	840
LYSIM	11	15	71	048	024	100	062	844	840
LYSIM	11	16	71	038	022	100	086	844	840
LYSIM	11	17	71	054	030	090	040	844	842
LYSIM	11	18	71	048	002	100	028	850	841
LYSIM	11	19	71	062	018	100	030	850	839
LYSIM	11	20	71	046	018	100	050	842	837
LYSIM	11	21	71	046	016	100	038	846	842
LYSIM	11	22	71	032	014	100	068	844	842
LYSIM	11	23	71	054	016	100	040	844	838
LYSIM	11	24	71	056	022	084	030		
LYSIM	11	25	71	048	026	100	042		
LYSIM	11	26	71	036	016	100	058		
LYSIM	11	27	71	038	008	100	044	838	833
LYSIM	11	28	71	040	016	100	038	837	832
LYSIM	11	29	71	026	020	100	100	849	837
LYSIM	11	30	71	026	022	100	100	853	849

DECEMBER 1971

STA	DATE			MAX	MIN	MAX	MIN	MAX	MIN
	MO	DA	YR	TEM	TEM	RH	RH	BAR	BAR
LYSIM	12	01	71	040	016	100	038	851	841
LYSIM	12	02	71	026	020	100	100	841	832
LYSIM	12	03	71	026	020	100	092	842	833
LYSIM	12	04	71	038	014	100	048	838	833
LYSIM	12	05	71	038	000	100	036	842	839
LYSIM	12	06	71	044	012	100	034	837	830
LYSIM	12	07	71	022	000	100	080	846	832
LYSIM	12	08	71	014	-02			845	836
LYSIM	12	09	71	048	004			845	836
LYSIM	12	10	71	034	-02	052	040	836	828
LYSIM	12	11	71	034	012	084	028	836	829
LYSIM	12	12	71	032	012	064	042	840	832
LYSIM	12	13	71	034	008	082	028	835	832
LYSIM	12	14	71	038	010	100	046	834	824
LYSIM	12	15	71	034	004	100	050	837	825
LYSIM	12	16	71	034	008	074	030	848	837
LYSIM	12	17	71	032	010	080	032	850	848
LYSIM	12	18	71	050	016	098	032	845	834
LYSIM	12	19	71	040	020	080	040	835	830
LYSIM	12	20	71	048	022	068	032	840	830
LYSIM	12	21	71	048	018	078	032	845	840
LYSIM	12	22	71	052	020	074	030	845	841
LYSIM	12	23	71	060	032	092	040	849	840
LYSIM	12	24	71	052	020	100	040	849	838
LYSIM	12	25	71	062	026	100	040	839	837
LYSIM	12	26	71	040	022	100	070	837	830
LYSIM	12	27	71	040	010	100	030	843	831
LYSIM	12	28	71	044	010	100	034	842	838
LYSIM	12	29	71	038	020	094	030	837	833
LYSIM	12	30	71	034	010	070	034	843	840
LYSIM	12	31	71	048	004	100	024	842	837

APPENDIX F

Field Data

Soil Water Transects

Soil water transect data collected in 1971 at the Pawnee Site is Grassland Biome data set A2U703B. Data were collected on form NREL-53. A copy of the form and an example of the data follow.

IBP

GRASSLAND BIOME

U.S. INTERNATIONAL BIOLOGICAL PROGRAM

FIELD DATA SHEET--SOIL WATER TRANSECTS

Data Type	Site	Treatment	Transect or Replicate	Date			Initials	Deep Tube	Probe Number	Tube Number	Shield Count	15 or 180 cm	30 or 210 cm	45 or 240 cm	60 or 270 cm	75 or 300 cm	90 cm	120 cm	150 cm	10 cm	20 cm	40 cm
				Day	Month	Year																
1-2	3-4	5	6	7-8	9-10	11-12	13-15	16	17-18	19-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80
53																						

Data Type

53 Soil water transects

Site

11 Pawnee

Treatment

1 Ungrazed
2 Lightly grazed
3 Moderately grazed
4 Heavily grazed
5 Grazed 69, Ungrazed 70
A Diet light
B Diet moderate
C Diet heavy
D ESA - 0
E ESA - W
F ESA - N
G ESA - WN
H Lynn Lake
J Winter grazed

Deep Tube Code

0 Regular tube
1 Deep tube

+++ EXAMPLE OF DATA +++

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        1         2         3         4         5         6         7
1234567890123456789012345678901234567890123456789012345678901234567890123456789
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Microwatershed Soil Water Data

Microwatershed soil water data collected in 1971 at the Pawnee Site is Grassland Biome data set A2U702B. Data were recorded on form NREL-54. A copy of the form and an example of the data follow.

IBP

GRASSLAND BIOME

U.S. INTERNATIONAL BIOLOGICAL PROGRAM

FIELD DATA SHEET--SOIL MOISTURE-MICROWATERSHEDS

Month		Day		Year	Watershed	Maximum Depth	Number Tubes Not Read	Counting Time (min.)	Treatment	Data Type	Site
2-3	4	5-6	7	8-9	11	13-15	17	19-22	24	26-27	28-29
	-		-							54	

Site

11 Pawnee

Data Type

54 Soil moisture - microwatersheds

Treatment

1 Ungrazed
2 Lightly grazed
3 Moderately grazed
4 Heavily grazed
5 Grazed 69, Ungrazed 70
A Diet light
8 Diet moderate
[illegible] Diet heav[illegible]
D ESA - O
E ESA - W
F ESA - N
G ESA - WN
H Lynn Lake
J Winter gr[illegible]

Tube	Probe	Tube	Probe	Tube	Probe	Tube	Probe	Tube	Probe	Tube	Probe	Tube	Probe	Tube	Probe	Tube	Probe	Tube	Probe
4-5	6-8	10-11	12-14	16-17	18-20	22-23	24-26	28-29	30-32	34-35	36-38	40-41	42-44	46-47	48-50	52-53	54-56	58-59	60-62

Depth	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Counts	Date			Watershed
											Day	Month	Year	
1-3	4-9	10-15	16-21	22-27	28-33	34-39	40-45	46-51	52-57	58-63	65-66	67-68	69-70	72

*** EXAMPLE OF DATA ***

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45	08044	06434	06922	06128	07353	08090	06333	05840	06303	06419	150471	5
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75	06118	04776	06357	05480	06543	07119	06649	06091	06333	06728	150471	5
90	06610	06032	06524	05375	06869	07882	07229	06500	06291	06413	150471	5
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4 15 71 7 240 0 0.5 3 5411

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10							06161				150471	7
240							05175				150471	7

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