BIBLIOGRAPHY

C. FITZHUGH TALMAN, Meteorologist in Charge of Library

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SOLAR OBSERVATIONS

SOLAR AND SKY RADIATION MEASUREMENTS DURING NOVEMBER, 1924

By HERBERT H. KIMBALL, In Charge Solar Radiation Investigations

For a description of instruments and exposures, and an account of the method of obtaining and reducing the measurements, the reader is referred to the REVIEW for January and February, 1924, **52**: 42 and 113.

From Table 1 it is seen that solar radiation intensities averaged slightly above the normal for November at Washington, close to normal at Madison, and slightly below normal at Lincoln.

Table 2 shows a deficiency in the total radiation received on a horizontal surface at Washington and Madison and a slight excess at Lincoln.

Skylight polarization measurements made on five days at Washington give a mean of 62 per cent, with a maximum of 64 per cent on the 17th. Measurements made on two days at Madison give a mean of 65 per cent, with a maximum of 66 per cent on the 1st. These are close to November average values for Washington but below November averages for Madison.

TABLE 1.—*Solar radiation intensities during November, 1924*

[Gram-calories per minute per square centimeter of normal surface]

Washington, D. C.

Date	8 a.m.	Sun's zenith distance									Noon
		78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	
	75th mer. time	Air mass									Local mean solar time
		A. M.					P. M.				
	e.	5.0	4.0	3.0	2.0	*1.0	2.0	3.0	4.0	5.0	e.
	mm.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mm.*
Nov. 1	8.18	0.63	0.76	0.99	1.22	1.50	1.24	1.02	0.84	0.74	7.04
12	9.14				0.99						8.48
14	12.68				1.19						5.36
17	2.26	1.01	1.12	1.20	1.44		1.44	1.19			1.88
19	2.49				0.97		0.97	0.76	0.60		2.36
20	3.45	0.94	0.85	0.99	1.25			1.07			4.95
26	3.30	0.87		1.04	1.32			1.16	1.01	0.82	2.74
28	4.17			1.05							3.45
Means		0.81	0.91	1.05	1.20		1.22	1.04	0.82	0.78	
Departures		+0.07	+0.06	+0.06	+0.03		+0.06	+0.07	±0.00	+0.06	

* Extrapolated.

TABLE 1.—*Solar radiation intensities during November, 1924*—Con.

Madison, Wis.

Nov. 1	4.95	0.91	0.99	1.13	1.30	1.49					5.16
4	3.15			1.19	1.33						3.45
12	2.87	0.99	1.13	1.26	1.43	1.61		1.26			3.63
15	2.87		0.84	1.07							3.63
19	3.30	0.83	0.97	1.12	1.34		1.31				4.95
20	5.36							1.10			6.50
Means		0.91	0.98	1.15	1.35		(1.31)	(1.18)			
Departures		+0.03	−0.03	−0.01	+0.05		−0.03	+0.01			

Lincoln, Nebr.

Nov. 1	3.63			1.15	1.38						3.30
7	2.87						1.39	1.09			3.45
8	3.00	0.87	0.97	1.10	1.26	1.43					3.63
15	3.15							1.21	1.08	0.97	3.99
17	3.99	1.07		1.27	1.38						4.17
18	3.30						1.42	1.24	1.12	1.02	3.81
19	4.57	0.92	0.99	1.12	1.26						5.16
20	6.76	0.87	0.96	1.06							5.56
21	3.00	0.99	1.09	1.22	1.32			1.09			3.30
25	2.26		1.09	1.26							2.06
Means		0.94	1.02	1.16	1.33		(1.40)	1.16	(1.10)	(1.00)	
Departures		±0.00	−0.03	−0.03	−0.03		−0.03	−0.04	−0.05	−0.06	

* Extrapolated.

TABLE 2.—*Solar and sky radiation received on a horizontal surface.*

[Gram-calories per square centimeter of horizontal surface]

Week beginning—	Average daily radiation					Average daily departure from normal		
	Washington	Madison	Lincoln	Chicago	New York	Washington	Madison	Lincoln
	cal.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*
Oct. 29	228	233	292	184	210	−17	+46	+44
Nov. 5	172	119	252	88	151	−51	−50	+20
12	188	135	234	90	171	−11	−14	+19
19	150	109	193	72	117	−26	−25	−9
26	168	132	187	91	143	+10	+7	−1
Excess or deficiency since first of year on Dec. 2, 1924						+634	−7,280	+3,370