

To be filled up, and sent on the first of each month, in an envelope, addressed to the "Commissioner of Agriculture, Washington, D. C."

REGISTER OF METEOROLOGICAL OBSERVATIONS,

UNDER THE DIRECTION OF THE SMITHSONIAN INSTITUTION, ADOPTED BY THE COMMISSIONER OF AGRICULTURE FOR HIS ANNUAL REPORT.

Place of Observation: Powhatan Neck, County of King George, State of Virginia
Latitude 38° 13' Longitude 77° 12' Height above the sea: 150 feet
Name and address of Observer: Edward L. Taylor, Powhatan Neck, King George Co. Va. For the month of October, 1874.

DAY OF MONTH.	THERMOMETER IN THE OPEN AIR.				RAIN AND SNOW.				CLOUDS.												WINDS.						DAY OF MONTH.						
					Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain and melted snow in gauge, in inches.	Depth of snow, in inches.	CLOUDS.												WINDS.												
									7 A.M.						2 P.M.						9 P.M.							7 A.M.		2 P.M.		9 P.M.	
	7 A.M.	2 P.M.	9 P.M.	Mean.					Amount of cloudiness.	Kind of clouds.	Velocity.	Direction.	Amount of cloudiness.	Kind of clouds.	Velocity.	Direction.	Amount of cloudiness.	Kind of clouds.	Velocity.	Direction.	Direction.	Force.	Direction.	Force.	Direction.	Force.							
1	52	66	61							Most											SW	SW	SE				1						
2	61	77	65																		SW	SW	E				2						
3	58	70	61							Light fog - Very light breeze from NW to NE at 2 P.M.											NW	SW					3						
4	58	65	58																		NW	NW	NW				4						
5	57	59	52																		NW	NW	NW				5						
6	52	65	60							Light fog - cloudy												S	SE				6						
7	60	69	65							Cloudy												S	N				7						
8	63	70	66							Light cloud - 1st week favorable											E	S				8							
9	62	71	65							Some fog - light day												N					9						
10	66	76	66							Fine Indian summer day											SW	SW	SW				10						
11	63	75	65							Fine day											SW	N	N				11						
12	58	62	54							Clear & cool											N	NW	NW				12						
13	49	53	46							Cold											NW	NW	NW				13						
14	41	57	44							Killing frost												NW					14						
15	33	61	32							Very heavy frost - 2d week favorable												N	SE				15						
16	46	65	58							Light fog												N					16						
17	49	70	63							" "												SW					17						
18	60	64	58							" "											N	NW	NW				18						
19	48	60	57							" "											NW	NW	SE				19						
20	42	66	57							Very heavy frost												N	SE				20						
21	47	72	64							Fog - light frost - Indian summer - a day																21							
22	57	73	62							Fine Indian summer day												SW					22						
23	53	74	60							" " " fog on river 3d week favorable												SE	SE				23						
24	58	64	61							" " " Cloudy											NE	E	SE				24						
25	60	65	58							" " " "											N	NW	N				25						
26	50	70	59							" " " dipping fog												SE					26						
27	57	75	66							Fog on river												S					27						
28	57	78	64							Fine Indian summer day												S	SE				28						
29	60	81	73							Warm " "											S	S	S				29						
30	66	83	80							Cloudy early - heavy stormy											E	E	N				30						
31	40	52	42							Heavy frost " "												NW	NW				31						
Sum.	1670	2079	1213				0.00																				Sum.						
Mean.				59.8°			2.60 in 1273																				Mean.						

THE OBJECT of these observations is to enable the Smithsonian Institution, in connection with the Department of Agriculture, to prepare a series of maps to illustrate the face of the sky, &c., over the United States, for each day in the year, and thus to study the rise, progress, and course of American storms. Observers who have a Barometer, Psychrometer, etc., will be supplied with other blanks, and also full directions for using all the instruments, by the Smithsonian Institution.

EXPLANATION OF THE ABOVE COLUMNS.

THERMOMETER IN THE OPEN AIR.

This is intended for the register of the thermometer, and for the daily mean or average of the three observations.

RAIN AND SNOW.

Under this head are entered the time of beginning and ending of the fall of rain or snow, and the amount, in inches and hundredths, of rain or melted snow collected in a gauge at the surface of the ground; also the depth of the snow. Rain to be indicated by R, and snow by S. When there is no rain or snow, mark 0.

CLOUDS.

Under this general head are entered three daily observations on the aspect of the sky, &c. 1st. The "Amount of cloudiness," designated by figures, 10 being entire cloudiness; 5 half cloudiness; 0 entire clearness; and intermediate numbers in proportion. 2d. "Motion of the higher clouds," which pass directly over the head of the observer, as given to eight points of the compass. The direction from which they move is to be given. This observation is important, as the course of the higher clouds is sometimes different from that of the surface wind, which is given in another column. 3d. The "Velocity," or rate of motion, 10 being the highest, and 0 apparent rest. 4th. The description or "Kind of clouds," to be entered by means of the following abbreviations: St. Stratus; Cu. Cumulus; Cir. Cirrus; Nim. Nimbus; Cir. st. Cirro-stratus; Cu. st. Cumulo-stratus; Cir. cu. Cirro-cumulus.

WINDS.

This is for the record of the direction from which the wind is blowing as indicated by a vane, and its force by estimation. The direction is entered in eight points of the compass: N., N.E., E., S.E., S., S.W., W., N.W. The force is to be estimated and registered by figures from 1 to 10, as in the first column of the following table. The figures in the last column, expressing the number of miles per hour, are not to be used in the register:

1. Very light breeze	2 miles per hour.
2. Gentle breeze	4 do. do.
3. Fresh breeze	12 do. do.
4. Strong wind	25 do. do.
5. High wind	35 do. do.
6. Gale	45 do. do.
7. Strong gale	60 do. do.
8. Violent gale	75 do. do.
9. Hurricane	80 do. do.
10. Most violent hurricane	100 do. do.

SEE OTHER SIDE.

highest, and 0 apparent rest. 4th. The description or "Kind of clouds," to be entered by means of the following abbreviations: St. Stratus; Cu. Cumulus; Cir. Cirrus; Nim. Nimbus; Cir. st. Cirro-stratus; Cu. st. Cumulo-stratus; Cir. cu. Cirro-cumulus.