

DEPARTMENT OF AGRICULTURE.

(WEATHER BUREAU.)

VOLUNTARY OBSERVER'S METEOROLOGICAL RECORD, at SalemCounty BrandenburgState Virginiafor February189 2Latitude 37°20'Longitude 80°45' WestHeight above sea 1200

feet.

INSTRUCTIONS FOR FILLING UP THIS FORM.

On this side of the form there is an opportunity to enter the most important meteorological observations, but if any observations are made, they should be entered on the other side. If an observer has the time to make readings three times each day they should be made at 7 a. m., 2 p. m., and 9 p. m., since it has been found that the mean temperature of the day can be determined from these three readings. If observations can be made but twice each day, the hours should be 7 a. m. and 9 p. m., or 5 a. m. and 8 p. m. If records are made but once each day, they may be entered in the column for 7 a. m. or 9 p. m., one being used, but not one observed a day and not be taken.

This observation should, however, be taken at or after sunset. The readings of the self-registering maximum and minimum thermometer should be recorded before the instruments are set.

Measure wind velocity in miles per hour. Measure force of wind in miles per hour. Measure direction of wind in degrees from north.

Under "clouds," if the observer desires, there may be entered the kind as well as amount, thus: "Cum. indicating cirrus clouds covering 3/4 of the sky."

Under "weather for day," enter clear, fair, or cloudy, according as the observer would sum up the clouds for the day, thus: "if the sum of the clouds at the three observations aggregate nine tenths, or less, the day will be recorded as clear, ten to twelve tenths as "cloudy," and more than twelve tenths as "stormy." Precipitation too small to measure should be entered "traces." If the snow is not melted one tenth of the depth of snow should not be entered in either of the columns.

If the observer estimates the force of the wind, it may be best done on the scale 0 to 12, as follows:

0. Calm.
1. Very light breeze. 2 miles per hour.
2. Gentle breeze. 4 miles per hour.
3. Fresh breeze. 8 miles per hour.
4. Strong wind. 12 miles per hour.
5. High wind. 16 miles per hour.
6. Hurricane. 20 miles per hour.
7. Strong gale. 24 miles per hour.
8. Gale. 28 miles per hour.
9. Storm. 32 miles per hour.
10. Hurricane. 36 miles per hour.
11. Very strong hurricane. 40 miles per hour.
12. Extreme hurricane. 44 miles per hour.

The mean temperature for the month will be found by adding all the daily mean temperatures for the month and dividing by the number of days in the month. Or the mean temperature may be found by adding all the daily maximum and minimum temperatures for the month and dividing by the number of days in the month. Obviously, these two mean should agree. In the column for "precipitation" enter at the foot of each column only the total amount, and do not divide this by the number of days in the month.

If the observer with the observer whether the summary is filled up or not, it is destructive to vegetation and the staple crops.

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DAY OF MONTH.	TEMPERATURE.						PRECIPITATION.					WIND.					CLOUDS (Tenths.)			Mean WEATHER (Day, Night, & Range)	
	7 A. M.		2 P. M.		9 P. M.		TIME OF—		RAIN-FALL.	MELTED SNOW.	SNOW-FALL.	7 A. M.		2 P. M.		9 P. M.		7 A. M.	2 P. M.		9 P. M.
	DRY BULB.*	WET BULB.*	DRY BULB.*	WET BULB.*	DRY BULB.*	WET BULB.*	BEGINNING.	ENDING.				DIR. FROM.	FORCE 0-10.	DIR. FROM.	FORCE 0-10.	DIR. FROM.	FORCE 0-10.				
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7		8
1	38.5		58.5		48.5																48
2	51.0		62.0		51.5																52
3	48.0		57.5		41.3																44
4	37.0		44.5		40.8																42
5	37.1		32.0		34.5				5.42	11.45 a.m.	.32	.22	1.0								34
6	29.0		34.5		31.8																33
7	34.0		37.5		35.8				8.30 a.m.												34
8	46.0		50.0		48.0				night		.89	.89									48
9	41.0		37.5		39.4																46
10	31.0		40.1		36.5																37
11	38.0		35.0		36.5																38
12	24.5		19.0		21.7				4 p.m.	4 h.	I	h.c.									25
13	26.5		38.0		32.2																31
14	37.5		32.0		44.7				11 a.m.	4 h.m.	.05	.05									40
15	47.0		39.4		43.2																44
16	36.4		41.5		38.8																41
17	34.4		42.5		38.4																38
18	37.9		37.0		44.4																45
19	47.1		52.0		49.5																47
20	52.0		57.0		54.5																55
21	48.5		47.5		48.0																48
22	43.0		48.4		45.7																48
23	42.0		46.5		44.2																42
24	38.4		44.5		41.4																46
25	42.5		37.5		47.0																46
26	49.0		46.5		47.7				4 h.m.												46
27	42.0		39.0		40.5				8.42	8 a.m.	.17	.17									42
28	32.4		33.0		32.7				5 a.m.	9 a.m.	1.61	1.61									32
29	33.5		43.0		38.2																36
30																					
31																					
Sum.	1102.2		1258.5		1198.5						4.11	5.83	7.0								1208
Mean.	35.4		43.2		41.3						0.038	0.063	0.226								41.1

SUMMARY.

Highest temperature	65 on 2nd	65
Lowest temperature	17.6 on 13th	17.6
Mean temperature (7+2+9+4) ÷ 2	30.5 am 8th ÷ 2	41.0
Mean temperature (max. and min. ÷ 2)	(41.7 + 17.6) ÷ 2	29.65
Total precipitation		2.74
Greatest precipitation in 24 consecutive hours	1.61 28th	
Prevailing direction of wind		
Dates of thunder storms		28th
Dates of hail		
Dates of frost { Light		
Killing		
Dates of auroras		13th
Dates of halos { Solar		
Lunar		
Number of days clear		
Number of days fair		
Number of days cloudy		
Number of days .01 inch or more rain or melted snow fell		5

INSTRUMENTS.

Dry thermometer, maker	Gunn	No.	
Max. " " " "			1326
Min. " " " "			1968
Kind of rain gauge			990
Height of thermometer above the ground	1.5	feet.	
Height of rain gauge above the ground	3	"	

P. E. Miley

Voluntary Observer.

Examined, corrected, & completed