



# UNIVERSIDAD NACIONAL DE COLOMBIA SEDE MANIZALES

OBSERVATORIOS AMBIENTALES PARA EL DESARROLLO URBANO SOTENIBLE EN MANIZALES

RED DE ESTACIONES HIDROMETEOROLÓGICAS PARA PREVENCIÓN DE DESASTRES DE MANIZALES



## ESTACIÓN METEOROLÓGICA YARUMOS

CÓDIGO: EMM-05

ABRIL DE 2011

### RESUMEN DIARIO Y MENSUAL DE VARIABLES METEOROLÓGICAS

Variables Día	Temperatura del Aire (°C)			V.V. (m/s)		P.B. (HPa)	Humedad Relativa (%)			LI. (mm)	Radiación Solar (W/m <sup>2</sup> )		ET. (mm)
	Máxima	Media	Mínima	Máxima	Media	Media	Máxima	Media	Mínima	Suma	Máxima	Media	Suma
1	25.6	16.8	12.6	3.6	0.7	794.7	95.0	80.7	51.0	2.8	1094.0	340.8	2.5
2	25.8	16.4	12.2	4.0	0.7	794.8	95.0	80.1	51.0	1.3	1052.0	301.9	2.0
3	22.1	15.9	11.5	3.1	0.7	794.4	94.0	82.5	62.0	0.0	824.0	237.4	1.5
4	21.2	15.8	12.6	2.7	0.6	794.4	96.0	86.7	65.0	6.6	778.0	192.1	1.5
5	22.1	15.3	11.8	3.1	0.7	794.5	96.0	87.7	58.0	8.4	777.0	199.2	1.3
6	24.4	16.5	12.2	3.6	0.7	794.7	97.0	84.1	51.0	6.9	1251.0	333.0	2.3
7	23.3	16.2	13.6	3.6	0.6	794.9	97.0	86.7	58.0	6.6	1183.0	280.4	1.8
8	23.0	16.5	12.8	3.1	0.7	794.9	97.0	83.1	56.0	4.8	1097.0	355.6	2.5
9	21.7	15.6	12.6	2.7	0.5	795.0	97.0	87.8	61.0	15.0	937.0	260.0	1.8
10	20.6	15.0	12.9	3.1	0.4	795.4	98.0	90.6	64.0	12.2	1030.0	241.6	1.8
11	21.8	15.9	12.2	4.5	0.8	794.8	97.0	85.1	62.0	6.1	1105.0	315.6	2.0
12	22.2	14.7	12.8	3.6	0.5	795.0	98.0	90.7	64.0	21.3	1227.0	250.4	1.5
13	22.9	15.4	11.6	4.0	0.9	794.6	98.0	85.1	57.0	2.0	1142.0	297.0	2.3
14	22.9	15.8	11.3	3.1	0.9	794.0	96.0	83.5	60.0	13.7	1015.0	263.1	2.0
15	20.6	14.6	13.1	2.7	0.3	794.1	97.0	92.5	70.0	32.8	577.0	146.0	0.8
16	23.4	15.1	12.7	2.7	0.3	794.3	98.0	89.9	61.0	8.4	788.0	196.9	1.3
17	18.4	14.7	12.5	3.1	0.5	794.2	97.0	91.1	76.0	7.1	379.0	147.4	1.0
18	20.9	14.4	11.6	3.6	0.7	794.4	97.0	90.2	68.0	21.8	907.0	185.5	1.3
19	23.4	15.4	11.4	4.5	1.2	794.5	96.0	83.2	54.0	23.6	1385.0	359.6	2.5
20	22.7	14.4	12.0	4.0	0.4	794.7	97.0	90.2	61.0	52.1	1180.0	230.6	1.5
21	21.1	15.1	11.7	4.5	0.7	794.2	97.0	87.1	64.0	11.9	1188.0	288.8	2.0
22	22.3	15.8	12.4	4.0	0.7	794.5	98.0	84.8	59.0	24.1	1146.0	343.4	2.3
23	22.4	14.9	12.6	3.6	1.1	794.8	94.0	87.0	63.0	4.1	969.0	177.7	1.5
24	23.1	15.3	11.4	2.7	1.0	794.3	96.0	86.3	60.0	20.3	998.0	224.5	1.5
25	22.5	15.1	12.2	4.0	0.8	794.5	96.0	89.1	62.0	20.8	671.0	186.8	1.3
26	23.9	16.3	12.3	3.6	0.6	795.0	96.0	83.3	55.0	0.0	918.0	267.9	2.0
27	23.6	15.9	12.3	4.5	0.7	795.2	97.0	86.3	57.0	10.2	1035.0	340.4	2.3
28	28.3	17.3	12.6	4.5	0.5	795.7	98.0	79.8	36.0	4.6	992.0	339.6	2.8
29	24.5	17.6	11.9	4.5	0.8	795.4	96.0	80.3	55.0	3.8	1029.0	393.8	3.1
30	25.3	17.3	13.4	4.5	1.0	795.1	94.0	79.5	50.0	0.0	1063.0	303.2	2.5
<b>Mensual</b>	<b>28.3</b>	<b>15.7</b>	<b>11.3</b>	<b>4.5</b>	<b>0.7</b>	<b>794.7</b>	<b>98.0</b>	<b>85.8</b>	<b>36.0</b>	<b>353.3</b>	<b>1385.0</b>	<b>266.7</b>	<b>56.7</b>

Convenciones: V.V.: Velocidad del Viento P.B.: Presión Barométrica LI.: Lluvia diaria ET.: Evapotranspiración. Nota: Datos resaltados en rojo están incompletos.



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CÓDIGO: EMM-05

ABRIL DE 2011

### JORNADA DIURNA - DIRECCIÓN DEL VIENTO SEGÚN LA ROSA DE LOS VIENTOS (Frecuencia relativa)

Día	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSO	SO	OSO	O	ONO	NO	NNO
1	5%	1%	1%	10%	11%	19%	1%	1%	0%	0%	0%	3%	3%	14%	19%	12%
2	14%	1%	1%	1%	8%	0%	2%	5%	3%	3%	2%	3%	4%	13%	24%	17%
3	6%	0%	0%	7%	13%	0%	0%	0%	0%	0%	1%	5%	8%	15%	38%	8%
4	4%	2%	10%	3%	30%	5%	0%	0%	0%	1%	0%	1%	3%	10%	15%	15%
5	8%	0%	1%	17%	3%	0%	0%	0%	0%	0%	1%	4%	14%	22%	17%	15%
6	7%	0%	0%	1%	6%	12%	0%	0%	0%	0%	1%	1%	7%	19%	27%	18%
7	6%	0%	0%	0%	0%	22%	0%	0%	0%	0%	1%	3%	9%	19%	26%	15%
8	1%	0%	0%	0%	0%	11%	7%	2%	1%	0%	0%	1%	8%	24%	34%	10%
9	3%	0%	0%	0%	0%	19%	3%	0%	5%	3%	1%	3%	23%	12%	23%	6%
10	1%	0%	0%	0%	10%	13%	0%	0%	0%	0%	3%	1%	5%	36%	19%	14%
11	2%	0%	0%	1%	10%	0%	0%	0%	0%	0%	0%	1%	6%	17%	32%	31%
12	0%	0%	3%	6%	27%	2%	1%	0%	0%	0%	6%	1%	17%	24%	8%	5%
13	7%	1%	5%	3%	14%	0%	0%	0%	0%	0%	0%	1%	5%	16%	27%	21%
14	3%	0%	1%	1%	19%	4%	3%	7%	1%	8%	6%	1%	3%	7%	13%	19%
15	1%	1%	0%	2%	18%	6%	0%	10%	4%	0%	2%	1%	2%	14%	26%	15%
16	1%	0%	0%	2%	33%	10%	1%	0%	0%	0%	0%	3%	11%	10%	13%	15%
17	13%	0%	0%	0%	22%	3%	1%	10%	3%	0%	0%	3%	1%	13%	19%	13%
18	7%	1%	1%	4%	13%	10%	6%	3%	2%	1%	0%	1%	6%	12%	13%	21%
19	0%	0%	0%	2%	23%	0%	0%	0%	0%	0%	1%	1%	8%	19%	30%	17%
20	4%	0%	0%	2%	42%	0%	0%	3%	1%	0%	1%	1%	3%	6%	19%	18%
21	8%	1%	1%	6%	31%	1%	3%	0%	0%	1%	2%	5%	8%	13%	14%	8%
22	1%	0%	0%	1%	24%	0%	0%	1%	0%	0%	0%	6%	11%	20%	25%	10%
23	0%	0%	0%	24%	44%	3%	0%	0%	0%	0%	0%	1%	3%	6%	13%	6%
24	6%	3%	1%	2%	37%	1%	1%	0%	0%	0%	0%	2%	6%	11%	23%	6%
25	11%	1%	0%	13%	9%	4%	0%	0%	0%	0%	1%	1%	13%	27%	12%	8%
26	1%	1%	10%	17%	10%	4%	3%	0%	0%	0%	1%	7%	5%	18%	15%	9%
27	1%	0%	0%	2%	15%	15%	1%	1%	1%	0%	1%	1%	15%	21%	20%	6%
28	1%	0%	0%	0%	10%	30%	9%	1%	1%	0%	0%	2%	8%	15%	9%	13%
29	3%	0%	0%	15%	2%	0%	0%	0%	1%	0%	1%	1%	12%	30%	19%	17%
30	3%	0%	0%	4%	9%	2%	1%	3%	0%	0%	0%	0%	6%	14%	38%	19%
Mensual	4%	0%	1%	5%	16%	7%	1%	2%	1%	1%	1%	2%	8%	17%	21%	14%

DIRECCIÓN DEL VIENTO EN EL MES ORDENADA DE MAYOR A MENOR PREDOMINANCIA																
R. V.	NO	ONO	E	NNO	O	ESE	ENE	N	OSO	SSE	SE	NE	SO	S	SSO	NNE
F. R.	21%	17%	16%	14%	8%	7%	5%	4%	2%	2%	1%	1%	1%	1%	1%	0%

Convenciones: R. V.: Rosa de los Vientos F. R.: Frecuencia Relativa. Nota: Datos resaltados en rojo están incompletos.



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ABRIL DE 2011

### JORNADA NOCTURNA - DIRECCIÓN DEL VIENTO SEGÚN LA ROSA DE LOS VIENTOS (Frecuencia relativa)

DIA	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSO	SO	OSO	O	ONO	NO	NNO
1	0%	0%	0%	9%	81%	6%	1%	0%	0%	0%	0%	0%	0%	0%	3%	0%
2	0%	0%	0%	13%	63%	15%	0%	3%	1%	1%	0%	0%	1%	4%	0%	0%
3	0%	0%	1%	6%	81%	8%	1%	0%	0%	0%	0%	0%	0%	0%	3%	0%
4	0%	14%	1%	10%	58%	12%	0%	0%	0%	0%	0%	0%	0%	0%	6%	0%
5	0%	0%	1%	12%	78%	7%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6	19%	0%	0%	11%	48%	7%	4%	0%	0%	0%	0%	0%	1%	1%	1%	8%
7	1%	1%	1%	40%	34%	10%	0%	0%	0%	0%	0%	0%	6%	0%	3%	4%
8	1%	0%	1%	5%	65%	5%	3%	0%	1%	0%	0%	0%	1%	2%	6%	10%
9	7%	0%	0%	6%	67%	9%	1%	0%	0%	0%	0%	0%	0%	0%	0%	10%
10	0%	0%	0%	1%	49%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%
11	1%	0%	3%	13%	31%	0%	0%	0%	0%	0%	0%	3%	16%	7%	16%	10%
12	46%	0%	6%	0%	8%	0%	0%	0%	0%	0%	0%	0%	0%	3%	9%	28%
13	23%	4%	1%	13%	55%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
14	0%	0%	1%	15%	80%	1%	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%
15	0%	0%	0%	1%	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
16	0%	0%	1%	10%	37%	0%	0%	14%	6%	0%	0%	3%	29%	0%	0%	0%
17	0%	10%	1%	11%	60%	8%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%
18	0%	0%	7%	12%	81%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
19	0%	0%	2%	12%	70%	6%	0%	0%	0%	0%	0%	1%	1%	3%	3%	1%
20	0%	8%	8%	5%	65%	4%	1%	0%	0%	0%	3%	1%	0%	3%	0%	1%
21	0%	0%	0%	2%	91%	3%	3%	0%	0%	1%	0%	0%	0%	0%	0%	0%
22	3%	1%	1%	15%	40%	2%	0%	0%	0%	0%	0%	0%	1%	17%	19%	1%
23	0%	0%	0%	14%	86%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
24	0%	0%	0%	10%	88%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
25	1%	0%	8%	39%	38%	1%	0%	0%	0%	0%	0%	0%	0%	13%	1%	0%
26	10%	1%	1%	30%	58%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
27	0%	0%	12%	31%	48%	3%	2%	0%	0%	0%	0%	0%	0%	0%	0%	5%
28	3%	3%	23%	32%	8%	5%	1%	0%	0%	0%	5%	8%	2%	1%	0%	10%
29	6%	7%	10%	37%	17%	1%	0%	1%	0%	0%	0%	0%	0%	3%	5%	14%
30	1%	0%	1%	20%	69%	0%	1%	0%	0%	0%	0%	0%	0%	0%	1%	6%
Mensual	4%	2%	3%	14%	58%	4%	1%	1%	0%	0%	0%	1%	2%	2%	4%	4%

DIRECCIÓN DEL VIENTO EN EL MES ORDENADA DE MAYOR A MENOR PREDOMINANCIA																
R. V.	E	ENE	NO	N	ESE	NNO	NE	ONO	O	NNE	SE	SSE	OSO	SO	S	SSO
F. R.	58%	14%	4%	4%	4%	4%	3%	2%	2%	2%	1%	1%	1%	0%	0%	0%

Convenciones: R. V.: Rosa de los Vientos F. R.: Frecuencia Relativa. Nota: Datos resaltados en rojo están incompletos.