



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

MAYO 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 ²)		ET. (mm)
	Máxima	Media	Mínima	Máxima	Media	Media	Máxima	Media	Mínima	Suma	Máxima	Media	Suma
1	26.8	16.3	12.7	5.8	1.0	794.7	94.0	84.6	51.0	3.6	1011.0	295.9	2.3
2	29.8	17.8	13.2	3.6	0.8	794.7	93.0	79.0	44.0	9.1	904.0	295.1	2.3
3	17.8	15.4	13.4	3.1	0.6	794.9	95.0	90.9	83.0	2.3	147.0	90.1	0.8
4	23.8	17.1	13.1	3.6	0.7	795.0	93.0	79.5	55.0	1.8	1052.0	313.3	2.5
5	24.6	17.6	12.8	3.6	0.9	795.2	95.0	80.0	52.0	0.5	684.0	303.5	2.5
6	27.5	18.3	12.8	3.6	1.0	795.4	97.0	79.4	45.0	0.8	947.0	297.5	2.5
7	25.8	17.9	14.2	3.6	0.6	795.4	96.0	83.0	55.0	0.8	1044.0	219.8	1.8
8	23.3	17.3	13.1	3.1	0.5	794.9	97.0	85.6	62.0	2.5	758.0	198.0	1.3
9	24.3	16.8	13.7	3.6	0.6	794.7	97.0	86.4	57.0	4.1	1118.0	237.3	1.8
10	28.7	18.0	12.7	3.6	1.0	794.2	94.0	79.3	38.0	4.8	845.0	293.0	2.5
11	21.7	16.2	13.4	2.7	0.6	794.8	94.0	88.2	65.0	10.4	328.0	129.3	1.0
12	25.6	16.1	12.7	3.6	0.9	795.0	95.0	86.6	55.0	9.4	775.0	229.4	1.8
13	21.9	15.2	11.9	4.0	0.6	794.7	97.0	89.9	66.0	51.1	891.0	205.9	1.3
14	20.1	14.4	12.0	3.1	0.8	794.6	97.0	89.9	68.0	9.1	516.0	171.4	1.3
15	23.6	17.0	11.4	3.6	0.8	793.2	95.0	82.6	59.0	2.0	820.0	344.7	2.8
16	23.5	17.5	13.4	4.9	0.7	794.5	96.0	80.7	59.0	9.1	715.0	334.4	2.8
17	24.9	16.7	12.8	5.8	1.2	795.4	97.0	81.1	53.0	31.2	917.0	409.5	3.0
18	24.6	15.7	12.3	4.0	0.9	795.5	97.0	83.5	47.0	8.6	1217.0	311.3	2.3
19	21.3	14.7	12.5	4.5	0.4	795.4	96.0	89.6	65.0	15.5	846.0	150.9	1.0
20	24.2	15.6	11.6	2.7	0.8	794.8	97.0	85.2	56.0	5.9	1000.0	230.0	1.8
21	22.2	15.4	12.1	4.0	0.4	794.6	97.0	89.0	63.0	15.7	699.0	169.0	1.3
22	25.1	15.1	12.6	3.6	0.3	794.8	97.0	90.6	56.0	12.2	778.0	160.4	1.0
23	24.8	16.9	11.2	4.9	0.6	794.6	97.0	82.1	52.0	0.0	1091.0	293.6	2.0
24	25.7	16.6	13.2	3.1	0.6	795.1	96.0	84.0	52.0	2.0	923.0	226.3	1.8
25	24.8	16.7	12.8	3.1	0.5	795.4	97.0	84.8	49.0	4.8	1024.0	256.9	2.0
26	23.8	15.2	11.8	4.0	1.0	795.3	96.0	86.2	59.0	17.0	701.0	184.1	1.3
27	25.8	16.9	11.3	3.6	1.1	794.6	96.0	78.3	45.0	1.8	1054.0	305.5	2.5
28	22.7	16.3	12.9	2.2	0.4	794.4	95.0	84.7	60.0	1.3	642.0	189.2	1.3
29	23.1	15.7	11.9	2.7	1.1	794.1	95.0	85.7	58.0	6.4	891.0	212.5	1.8
30	26.7	17.5	13.0	3.1	0.7	794.5	95.0	81.1	50.0	0.0	1178.0	302.2	2.0
31	21.7	16.5	13.7	3.1	0.4	795.1	97.0	88.2	69.0	10.2	427.0	150.3	1.3
Mensual	29.8	16.5	11.2	5.8	0.7	794.8	97.0	84.5	38.0	254.0	1217.0	242.3	57.7

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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MAYO 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	1%	0%	0%	3%	26%	3%	0%	1%	1%	0%	2%	3%	6%	19%	17%	17%
2	13%	1%	3%	13%	17%	0%	1%	0%	0%	0%	0%	1%	7%	9%	19%	17%
3	0%	0%	0%	31%	18%	6%	0%	0%	0%	0%	1%	0%	1%	19%	24%	1%
4	5%	1%	1%	4%	10%	8%	0%	0%	0%	1%	2%	1%	3%	34%	25%	5%
5	0%	0%	0%	9%	0%	10%	0%	0%	0%	2%	1%	10%	13%	22%	24%	8%
6	6%	0%	0%	5%	15%	0%	0%	1%	0%	1%	1%	2%	9%	15%	25%	21%
7	0%	0%	0%	1%	16%	1%	1%	1%	7%	0%	0%	1%	6%	21%	29%	17%
8	18%	0%	0%	4%	22%	3%	2%	2%	1%	1%	1%	0%	6%	8%	8%	24%
9	2%	0%	0%	4%	15%	19%	2%	0%	0%	0%	3%	3%	8%	28%	11%	4%
10	8%	0%	1%	2%	20%	1%	3%	13%	7%	1%	0%	3%	4%	13%	11%	13%
11	3%	0%	4%	3%	13%	8%	17%	3%	0%	0%	0%	0%	0%	1%	27%	21%
12	0%	0%	0%	8%	15%	6%	1%	2%	0%	5%	0%	0%	4%	22%	22%	15%
13	3%	0%	0%	1%	15%	4%	1%	1%	1%	0%	0%	5%	13%	16%	24%	17%
14	1%	0%	0%	15%	6%	4%	9%	1%	0%	1%	0%	3%	5%	17%	17%	23%
15	1%	0%	0%	11%	22%	1%	1%	2%	0%	5%	0%	0%	4%	19%	16%	19%
16	1%	0%	0%	1%	15%	0%	0%	0%	0%	0%	1%	1%	6%	26%	27%	21%
17	0%	0%	0%	3%	21%	1%	3%	1%	0%	1%	3%	3%	7%	27%	24%	6%
18	1%	1%	1%	8%	35%	2%	1%	3%	6%	1%	1%	3%	3%	10%	18%	6%
19	1%	1%	1%	24%	18%	1%	0%	9%	0%	0%	1%	2%	15%	11%	9%	6%
20	6%	1%	1%	12%	29%	1%	0%	0%	0%	0%	1%	1%	3%	8%	16%	21%
21	2%	0%	0%	17%	10%	3%	0%	1%	2%	0%	0%	0%	2%	17%	33%	13%
22	0%	0%	0%	0%	22%	1%	0%	0%	5%	17%	0%	0%	7%	17%	15%	17%
23	2%	0%	0%	0%	17%	0%	0%	0%	0%	0%	1%	1%	13%	24%	19%	23%
24	1%	0%	0%	0%	21%	0%	0%	1%	1%	1%	4%	0%	13%	22%	27%	10%
25	0%	0%	0%	3%	15%	0%	0%	0%	0%	0%	0%	1%	7%	37%	28%	9%
26	1%	0%	0%	2%	35%	13%	6%	0%	1%	1%	2%	3%	2%	10%	11%	14%
27	2%	0%	0%	1%	15%	10%	1%	0%	0%	0%	0%	1%	8%	19%	17%	26%
28	1%	0%	0%	0%	11%	0%	0%	0%	0%	0%	0%	3%	15%	11%	46%	13%
29	8%	0%	1%	10%	15%	3%	4%	1%	8%	4%	0%	1%	2%	13%	11%	19%
30	3%	0%	2%	0%	19%	0%	0%	1%	1%	0%	4%	2%	6%	18%	22%	22%
31	32%	1%	8%	1%	3%	0%	0%	0%	0%	0%	0%	0%	5%	19%	13%	17%
Mensual	4%	0%	1%	6%	17%	4%	2%	1%	1%	1%	1%	2%	7%	18%	20%	15%

DIRECCIÓN DEL VIENTO EN EL MES ORDENADA DE MAYOR A MENOR PREDOMINANCIA																
R. V.	NO	ONO	E	NNO	O	ENE	N	ESE	OSO	SE	SSE	S	SSO	SO	NE	NNE
F. R.	20%	18%	17%	15%	7%	6%	4%	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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MAYO DE 2011

JORNADA NOCTURNA - 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	1%	6%	1%	19%	63%	6%	4%	0%	0%	0%	0%	0%	0%	0%	1%	0%
2	4%	0%	0%	19%	72%	1%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%
3	0%	0%	1%	10%	79%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
4	0%	0%	0%	20%	78%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%
5	0%	0%	1%	16%	76%	1%	4%	1%	0%	0%	0%	0%	1%	0%	0%	0%
6	1%	1%	4%	23%	63%	3%	0%	0%	0%	0%	0%	0%	0%	3%	2%	0%
7	0%	0%	7%	9%	68%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13%
8	0%	0%	11%	6%	44%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	39%
9	0%	0%	20%	31%	42%	6%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
10	6%	0%	0%	17%	74%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11	0%	1%	0%	13%	51%	27%	1%	0%	0%	0%	0%	0%	0%	0%	0%	8%
12	1%	0%	1%	15%	63%	14%	3%	1%	0%	0%	0%	0%	0%	0%	0%	2%
13	0%	0%	0%	26%	32%	10%	11%	6%	8%	0%	0%	1%	1%	2%	1%	1%
14	1%	2%	1%	20%	63%	8%	6%	0%	0%	0%	0%	0%	0%	0%	0%	1%
15	1%	0%	1%	36%	46%	10%	3%	1%	0%	0%	0%	0%	0%	0%	0%	2%
16	0%	0%	2%	30%	44%	12%	0%	2%	3%	1%	1%	1%	1%	1%	3%	0%
17	0%	0%	0%	22%	69%	7%	1%	0%	1%	0%	0%	1%	0%	0%	0%	0%
18	0%	0%	0%	28%	62%	3%	3%	0%	0%	0%	0%	1%	0%	2%	1%	0%
19	0%	0%	0%	84%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20	0%	0%	0%	40%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
21	5%	3%	17%	26%	24%	0%	0%	0%	0%	0%	0%	0%	1%	20%	3%	1%
22	7%	1%	9%	10%	58%	1%	0%	0%	0%	0%	1%	0%	1%	0%	13%	1%
23	0%	0%	0%	36%	51%	7%	0%	0%	0%	0%	0%	0%	6%	0%	0%	0%
24	0%	1%	3%	19%	43%	1%	9%	0%	1%	0%	0%	0%	0%	15%	7%	1%
25	0%	0%	3%	55%	12%	0%	0%	0%	0%	0%	0%	0%	0%	2%	3%	25%
26	0%	0%	0%	50%	36%	9%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%
27	5%	0%	0%	13%	78%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
28	0%	0%	1%	26%	53%	1%	0%	0%	0%	0%	1%	0%	0%	0%	6%	11%
29	0%	0%	1%	17%	78%	3%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
30	1%	0%	12%	22%	58%	1%	0%	0%	0%	0%	0%	1%	3%	0%	1%	2%
31	0%	0%	4%	26%	45%	0%	0%	0%	0%	0%	0%	1%	6%	4%	11%	3%
Mensual	1%	0%	3%	25%	55%	5%	2%	0%	0%	0%	0%	0%	1%	2%	2%	4%

DIRECCIÓN DEL VIENTO EN EL MES ORDENADA DE MAYOR A MENOR PREDOMINANCIA																
R. V.	E	ENE	ESE	NNO	NE	SE	NO	ONO	N	O	NNE	S	SSE	OSO	SO	SSO
F. R.	55%	25%	5%	4%	3%	2%	2%	2%	1%	1%	0%	0%	0%	0%	0%	0%

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