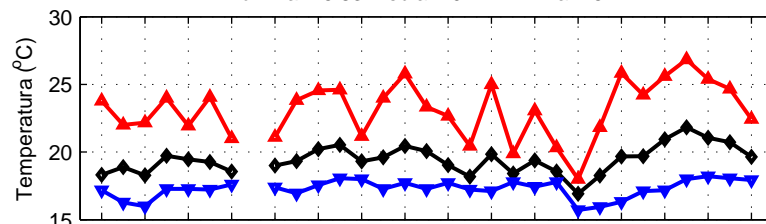


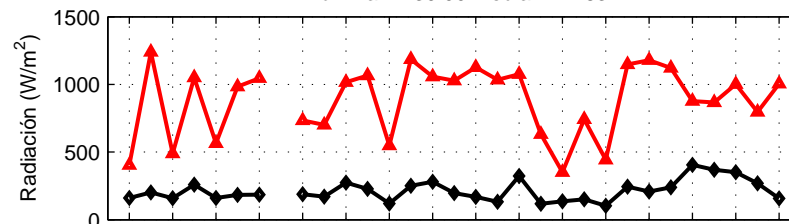
Estación: El Nudo
Fecha: Diciembre de 2013
Registros: 30 de 31

Reporte climatológico mensual
Red Hidroclimatológica del Departamento de Risaralda
Revisó: Adm. Ambiental Víctor Manuel Bermúdez Marín. Operador REDH
Aprobó: Ing Ph.D. Juan Mauricio Castaño Rojas. Director REDH.
Contáctenos: <http://www.utp.edu.co/hidroclimatologica>

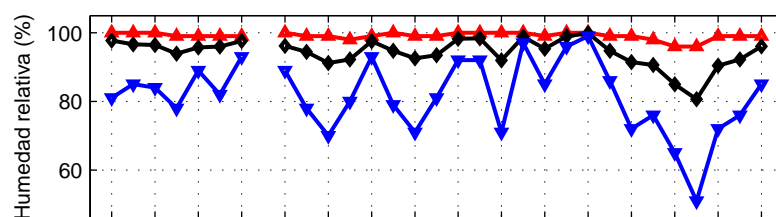
Máxima: 26.83 Media: 19.44 Mínima: 15.72



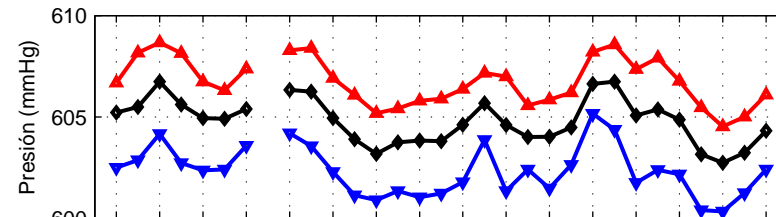
Máxima: 1239.00 Media: 212.83



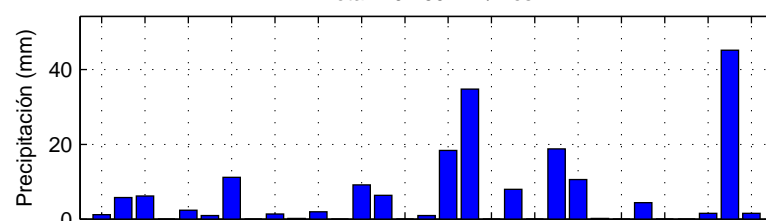
Máxima: 100.00 Media: 94.30 Mínima: 51.00



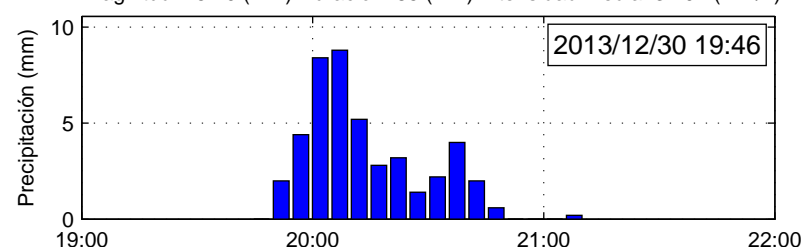
Máxima: 608.67 Media: 604.80 Mínima: 600.34



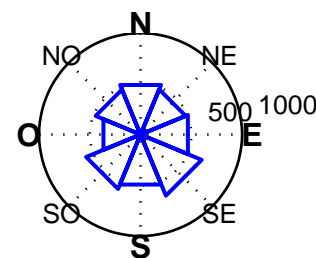
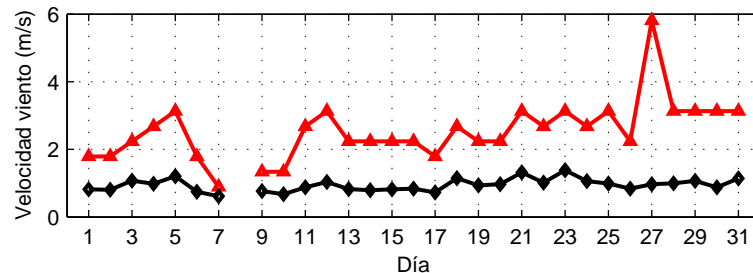
Total: 191.60 mm/mes



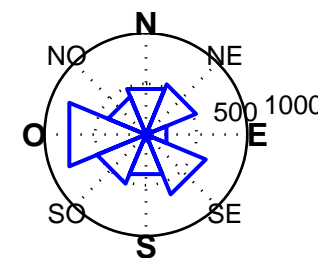
Magnitud: 45.20 (mm) Duración: 85 (min) Intensidad Media: 31.91 (mm/h)



Máxima: 5.81 Media: 0.94



Dirección del viento (Día)



Dirección del viento (Noche)



Estación: El Nudo
Fecha: Diciembre de 2013
Registros: 30 de 31

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| Día | Temperatura (°C) | | | Vel. Viento (m/s) | | Presión (mmHg) | Humedad (%) | Precipitación (mm) | Evap (mm) | Radiación solar (W/m²) | |
|-------|------------------|-------|-------|-------------------|-------|----------------|-------------|--------------------|-----------|------------------------|--------|
| | Máx | Media | Mín | Máx | Media | Media | Media | Total | Total | Máx | Media |
| 1 | 23.78 | 18.31 | 17.17 | 1.79 | 0.82 | 605.22 | 97.70 | 1.20 | 1.04 | 404.00 | 160.21 |
| 2 | 22.00 | 18.89 | 16.28 | 1.79 | 0.80 | 605.49 | 96.63 | 5.80 | 1.25 | 1239.00 | 201.59 |
| 3 | 22.17 | 18.27 | 16.00 | 2.24 | 1.07 | 606.75 | 96.41 | 6.20 | 1.12 | 489.00 | 158.46 |
| 4 | 24.00 | 19.73 | 17.28 | 2.68 | 0.98 | 605.61 | 93.90 | 0.00 | 1.88 | 1051.00 | 259.44 |
| 5 | 21.94 | 19.46 | 17.28 | 3.13 | 1.21 | 604.94 | 95.72 | 2.40 | 1.17 | 564.00 | 160.56 |
| 6 | 24.06 | 19.27 | 17.22 | 1.79 | 0.75 | 604.92 | 95.95 | 1.00 | 1.22 | 983.00 | 183.24 |
| 7 | 21.00 | 18.56 | 17.61 | 0.89 | 0.62 | 605.40 | 97.59 | 11.20 | 1.22 | 1046.00 | 184.30 |
| 8 | | | | | | | | | | | |
| 9 | 21.11 | 19.00 | 17.39 | 1.34 | 0.77 | 606.33 | 96.20 | 1.40 | 1.22 | 733.00 | 187.63 |
| 10 | 23.83 | 19.33 | 16.94 | 1.34 | 0.67 | 606.25 | 94.43 | 0.20 | 1.22 | 700.00 | 170.25 |
| 11 | 24.56 | 20.21 | 17.56 | 2.68 | 0.88 | 604.95 | 91.20 | 2.00 | 2.08 | 1016.00 | 273.51 |
| 12 | 24.61 | 20.52 | 18.06 | 3.13 | 1.04 | 603.90 | 92.23 | 0.00 | 1.63 | 1065.00 | 227.20 |
| 13 | 21.17 | 19.31 | 18.00 | 2.24 | 0.83 | 603.18 | 97.50 | 9.20 | 0.82 | 548.00 | 119.23 |
| 14 | 24.00 | 19.62 | 17.28 | 2.24 | 0.79 | 603.75 | 94.77 | 6.40 | 1.91 | 1185.00 | 250.48 |
| 15 | 25.78 | 20.45 | 17.72 | 2.24 | 0.82 | 603.84 | 92.53 | 0.00 | 2.11 | 1058.00 | 279.64 |
| 16 | 23.33 | 20.07 | 17.28 | 2.24 | 0.84 | 603.80 | 93.46 | 1.00 | 1.47 | 1028.00 | 195.96 |
| 17 | 22.67 | 19.03 | 17.72 | 1.79 | 0.72 | 604.61 | 98.26 | 18.40 | 1.14 | 1127.00 | 168.67 |
| 18 | 20.44 | 18.18 | 17.22 | 2.68 | 1.15 | 605.68 | 98.37 | 34.80 | 0.84 | 1035.00 | 132.05 |
| 19 | 25.00 | 19.83 | 17.11 | 2.24 | 0.93 | 604.61 | 91.99 | 0.00 | 2.31 | 1076.00 | 323.41 |
| 20 | 19.89 | 18.40 | 17.78 | 2.24 | 0.97 | 604.01 | 98.85 | 8.00 | 0.79 | 631.00 | 117.13 |
| 21 | 23.06 | 19.38 | 17.44 | 3.13 | 1.32 | 604.02 | 95.35 | 0.00 | 1.02 | 350.00 | 136.35 |
| 22 | 20.33 | 18.57 | 17.78 | 2.68 | 1.01 | 604.48 | 98.94 | 18.80 | 1.02 | 742.00 | 150.10 |
| 23 | 18.00 | 16.92 | 15.72 | 3.13 | 1.38 | 606.64 | 99.87 | 10.60 | 0.69 | 443.00 | 103.41 |
| 24 | 21.83 | 18.26 | 15.94 | 2.68 | 1.06 | 606.74 | 94.76 | 0.20 | 1.73 | 1148.00 | 244.63 |
| 25 | 25.83 | 19.67 | 16.33 | 3.13 | 0.99 | 605.08 | 91.41 | 0.00 | 1.58 | 1179.00 | 208.01 |
| 26 | 24.22 | 19.69 | 17.11 | 2.24 | 0.84 | 605.37 | 90.57 | 4.40 | 1.78 | 1121.00 | 239.17 |
| 27 | 25.61 | 20.95 | 17.17 | 5.81 | 0.97 | 604.87 | 84.99 | 0.00 | 3.10 | 877.00 | 405.73 |
| 28 | 26.83 | 21.82 | 18.00 | 3.13 | 1.00 | 603.16 | 80.65 | 0.00 | 2.87 | 867.00 | 369.37 |
| 29 | 25.39 | 21.06 | 18.22 | 3.13 | 1.07 | 602.74 | 90.42 | 1.60 | 2.54 | 1002.00 | 350.43 |
| 30 | 24.67 | 20.73 | 18.06 | 3.13 | 0.88 | 603.23 | 92.21 | 45.20 | 1.98 | 796.00 | 267.86 |
| 31 | 22.44 | 19.64 | 17.94 | 3.13 | 1.14 | 604.32 | 96.03 | 1.60 | 1.14 | 1005.00 | 156.84 |
| TOTAL | | | | | | | | 191.60 | 45.89 | | |
| PROM | 23.12 | 19.44 | 17.29 | 2.53 | 0.94 | 604.80 | 94.30 | | | 883.60 | 212.83 |

Cuadro 1: Resumen de análisis climatológico

Estación: El Nudo
Fecha: Diciembre de 2013
Registros: 30 de 31

Reporte climatológico mensual
 Red Hidroclimatológica del Departamento de Risaralda
 Revisó: Adm. Ambiental Victor Manuel Bermúdez Marín. Operador REDH
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| Día | Lluvias por intensidad | | | | Lluvias por jornada | | | | CLL | PT (mm) | DP | | DM (min) | MM (mm) | IMM (mm/h) | IM5 (mm/h) |
|-------|------------------------|----|----|----|---------------------|----|----|---|-----|---------|-------|-------|----------|---------|------------|------------|
| | F | M | L | LL | Md | Mñ | T | N | | | (h) | (%) | | | | |
| 1 | 0 | 0 | 3 | 1 | 4 | 0 | 0 | 0 | 4 | 1.20 | 0.50 | 2.08 | 40.00 | 0.60 | 0.80 | 2.40 |
| 2 | 0 | 1 | 4 | 0 | 0 | 2 | 1 | 2 | 5 | 5.80 | 2.00 | 8.33 | 150.00 | 3.00 | 1.16 | 2.40 |
| 3 | 0 | 1 | 4 | 0 | 1 | 0 | 3 | 1 | 5 | 6.20 | 1.67 | 6.94 | 60.00 | 3.80 | 3.51 | 12.00 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2.40 | 0.42 | 1.74 | 35.00 | 2.40 | 3.60 | 16.80 |
| 6 | 0 | 0 | 4 | 0 | 2 | 1 | 1 | 0 | 4 | 1.00 | 0.33 | 1.39 | 10.00 | 0.40 | 1.60 | 4.80 |
| 7 | 0 | 2 | 2 | 0 | 1 | 2 | 1 | 0 | 4 | 11.20 | 2.00 | 8.33 | 70.00 | 6.80 | 5.44 | 19.20 |
| 8 | | | | | | | | | | | | | | | | |
| 9 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 2 | 1.40 | 0.33 | 1.39 | 20.00 | 1.20 | 2.88 | 7.20 |
| 10 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0.20 | 0.08 | 0.35 | 10.00 | 0.20 | 0.80 | 2.40 |
| 11 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 2.00 | 0.42 | 1.74 | 40.00 | 1.80 | 2.40 | 9.60 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 1 | 3 | 9.20 | 1.25 | 5.21 | 75.00 | 8.80 | 6.60 | 16.80 |
| 14 | 0 | 1 | 2 | 0 | 0 | 0 | 3 | 0 | 3 | 6.40 | 1.00 | 4.17 | 60.00 | 6.00 | 5.54 | 26.40 |
| 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16 | 0 | 0 | 2 | 1 | 1 | 0 | 1 | 1 | 3 | 1.00 | 0.33 | 1.39 | 10.00 | 0.40 | 1.60 | 4.80 |
| 17 | 0 | 2 | 4 | 0 | 2 | 1 | 3 | 0 | 6 | 18.40 | 2.92 | 12.15 | 70.00 | 8.80 | 7.04 | 31.20 |
| 18 | 1 | 1 | 4 | 0 | 1 | 1 | 3 | 1 | 6 | 34.80 | 2.92 | 12.15 | 155.00 | 32.00 | 12.00 | 100.80 |
| 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20 | 1 | 0 | 6 | 1 | 3 | 3 | 2 | 0 | 8 | 8.00 | 2.25 | 9.38 | 20.00 | 2.80 | 6.72 | 19.20 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22 | 0 | 2 | 4 | 1 | 3 | 1 | 2 | 1 | 7 | 18.80 | 3.33 | 13.89 | 145.00 | 14.20 | 5.68 | 21.60 |
| 23 | 0 | 1 | 11 | 1 | 4 | 7 | 2 | 0 | 13 | 10.60 | 3.67 | 15.28 | 100.00 | 5.20 | 2.97 | 7.20 |
| 24 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0.20 | 0.08 | 0.35 | 10.00 | 0.20 | 0.80 | 2.40 |
| 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 26 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 2 | 4.40 | 0.58 | 2.43 | 40.00 | 4.20 | 5.60 | 19.20 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 29 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1.60 | 0.25 | 1.04 | 20.00 | 1.60 | 3.84 | 9.60 |
| 30 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 45.20 | 1.08 | 4.51 | 85.00 | 45.20 | 30.13 | 105.60 |
| 31 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 1.60 | 0.67 | 2.78 | 45.00 | 1.40 | 1.68 | 2.40 |
| MAX | 1 | 2 | 11 | 1 | 4 | 7 | 3 | 2 | 13 | 45.20 | 3.67 | 15.28 | 155.00 | 45.20 | 30.13 | 105.60 |
| TOTAL | 3 | 17 | 59 | 5 | 28 | 19 | 29 | 8 | 84 | 191.60 | 28.08 | 3.77 | | | | |

Cuadro 1: Análisis mensual de lluvias

| | | |
|----|----------|--|
| F | Fuerte | $7.6 \text{ (mm/h)} \leq \text{intensidad}$ |
| M | Moderada | $2.5 \text{ (mm/h)} < \text{intensidad} \leq 7.6 \text{ (mm/h)}$ |
| L | Ligera | $1.0 \text{ (mm/h)} < \text{intensidad} \leq 2.5 \text{ (mm/h)}$ |
| LL | Llovizna | $1.0 \text{ (mm/h)} \geq \text{intensidad}$ |

| | | |
|----|-----------|---------------|
| Md | Madrugada | 00:00 - 05:59 |
| Mñ | Mañana | 06:00 - 11:59 |
| T | Tarde | 12:00 - 17:59 |
| N | Noche | 18:00 - 23:59 |

| | |
|-----|--------------------------------------|
| CLL | Cantidad de Lluvias |
| PT | Precipitación total (mm) |
| DP | Duración precipitación diaria |
| DM | Duración máxima lluvia aislada (min) |
| MM | Magnitud máx. lluvia aislada (mm) |
| IMM | Intensidad media máxima (mm/h) |
| IM5 | Intensidad máx. en 5 minutos (mm/h) |

Cuadro 2: Convenciones y Unidades