

DEPARTAMENTO DE INVESTIGACIÓN Y SERVICIOS HÍDRICOS
DECLINACIÓN SOLAR 2013

Para 0:00 Hrs. Tiempo Universal o tiempo Civil de Greenwich

| ENERO | | | | FEBRERO | | | | MARZO | | | | ABRIL | | | | MAYO | | | | JUNIO | | | |
|-------|---|-----|------|---------|---|-----|------|-------|---|----|------|-------|---|----|------|------|---|----|------|-------|---|----|------|
| DIA | | G | M | DIA | | G | M | DIA | | G | M | DIA | | G | M | DIA | | G | M | DIA | | G | M |
| 1 | S | -23 | 0.1 | 1 | S | -17 | 6.7 | 1 | S | -7 | 36.4 | 1 | N | 4 | 31.1 | 1 | N | 15 | 3.5 | 1 | N | 22 | 2.6 |
| 2 | S | -22 | 55 | 2 | S | -16 | 49.5 | 2 | S | -7 | 13.5 | 2 | N | 4 | 54.2 | 2 | N | 15 | 21.6 | 2 | N | 22 | 10.6 |
| 3 | S | -22 | 49.4 | 3 | S | -16 | 32 | 3 | S | -6 | 50.6 | 3 | N | 5 | 17.3 | 3 | N | 15 | 39.3 | 3 | N | 22 | 18.2 |
| 4 | S | -22 | 43.3 | 4 | S | -16 | 13.4 | 4 | S | -6 | 27.5 | 4 | N | 5 | 40.2 | 4 | N | 15 | 56.9 | 4 | N | 22 | 25.4 |
| 5 | S | -22 | 36.8 | 5 | S | -15 | 56.2 | 5 | S | -6 | 4.4 | 5 | N | 6 | 3 | 5 | N | 16 | 14.1 | 5 | N | 22 | 32.2 |
| 6 | S | -22 | 29.9 | 6 | S | -15 | 37.8 | 6 | S | -5 | 41.2 | 6 | N | 6 | 25.8 | 6 | N | 16 | 31.1 | 6 | N | 22 | 38.6 |
| 7 | S | -22 | 22.5 | 7 | S | -15 | 19.2 | 7 | S | -5 | 17.9 | 7 | N | 6 | 48.4 | 7 | N | 16 | 47.8 | 7 | N | 22 | 44.6 |
| 8 | S | -22 | 14.6 | 8 | S | -15 | 0.3 | 8 | S | -4 | 54.5 | 8 | N | 7 | 10.9 | 8 | N | 17 | 4.3 | 8 | N | 22 | 50.2 |
| 9 | S | -22 | 6.3 | 9 | S | -14 | 41.2 | 9 | S | -4 | 31.1 | 9 | N | 7 | 33.3 | 9 | N | 17 | 20.4 | 9 | N | 22 | 55.4 |
| 10 | S | -21 | 57.6 | 10 | S | -14 | 21.8 | 10 | S | -4 | 7.6 | 10 | N | 7 | 55.6 | 10 | N | 17 | 36.3 | 10 | N | 23 | 0.2 |
| 11 | S | -21 | 48.5 | 11 | S | -14 | 2.2 | 11 | S | -3 | 44 | 11 | N | 8 | 17.7 | 11 | N | 17 | 51.9 | 11 | N | 23 | 4.6 |
| 12 | S | -21 | 38.9 | 12 | S | -13 | 42.4 | 12 | S | -3 | 20.4 | 12 | N | 8 | 39.7 | 12 | N | 18 | 7.1 | 12 | N | 23 | 8.6 |
| 13 | S | -21 | 28.9 | 13 | S | -13 | 22.3 | 13 | S | -2 | 56.8 | 13 | N | 9 | 1.5 | 13 | N | 18 | 22.1 | 13 | N | 23 | 12.2 |
| 14 | S | -21 | 18.5 | 14 | S | -13 | 2 | 14 | S | -2 | 33.2 | 14 | N | 9 | 23.2 | 14 | N | 18 | 36.8 | 14 | N | 23 | 15.4 |
| 15 | S | -21 | 7.7 | 15 | S | -12 | 41.5 | 15 | S | -2 | 9.5 | 15 | N | 9 | 44.8 | 15 | N | 18 | 51.1 | 15 | N | 23 | 18.2 |
| 16 | S | -20 | 56.5 | 16 | S | -12 | 20.8 | 16 | S | -1 | 45.8 | 16 | N | 10 | 6.1 | 16 | N | 19 | 5.1 | 16 | N | 23 | 20.5 |
| 17 | S | -20 | 44.9 | 17 | S | -11 | 59.9 | 17 | S | -1 | 22.1 | 17 | N | 10 | 27.3 | 17 | N | 19 | 18.8 | 17 | N | 23 | 22.5 |
| 18 | S | -20 | 32.9 | 18 | S | -11 | 38.9 | 18 | N | 0 | 58.3 | 18 | N | 10 | 48.4 | 18 | N | 19 | 32.2 | 18 | N | 23 | 24 |
| 19 | S | -20 | 20.5 | 19 | S | -11 | 17.6 | 19 | N | 0 | 34.6 | 19 | N | 11 | 9.2 | 19 | N | 19 | 45.2 | 19 | N | 23 | 25.1 |
| 20 | S | -20 | 7.7 | 20 | S | -10 | 56.1 | 20 | N | 0 | 10.9 | 20 | N | 11 | 29.9 | 20 | N | 19 | 57.9 | 20 | N | 23 | 25.8 |
| 21 | S | -19 | 54.5 | 21 | S | -10 | 34.5 | 21 | N | 0 | 12.8 | 21 | N | 11 | 50.4 | 21 | N | 20 | 10.3 | 21 | N | 23 | 26.1 |
| 22 | S | -19 | 41 | 22 | S | -10 | 12.8 | 22 | N | 0 | 36.5 | 22 | N | 12 | 10.6 | 22 | N | 20 | 22.3 | 22 | N | 23 | 26 |
| 23 | S | -19 | 27.1 | 23 | S | -9 | 50.8 | 23 | N | 1 | 0.2 | 23 | N | 12 | 30.7 | 23 | N | 20 | 34 | 23 | N | 23 | 25.5 |
| 24 | S | -19 | 12.9 | 24 | S | -9 | 28.8 | 24 | N | 1 | 23.8 | 24 | N | 12 | 50.6 | 24 | N | 20 | 45.3 | 24 | N | 23 | 24.5 |
| 25 | S | -18 | 58.3 | 25 | S | -9 | 6.5 | 25 | N | 1 | 47.4 | 25 | N | 13 | 10.3 | 25 | N | 20 | 56.2 | 25 | N | 23 | 23.2 |
| 26 | S | -18 | 43.3 | 26 | S | -8 | 44.2 | 26 | N | 2 | 10.9 | 26 | N | 13 | 29.7 | 26 | N | 21 | 6.8 | 26 | N | 23 | 21.4 |
| 27 | S | -18 | 28 | 27 | S | -8 | 21.7 | 27 | N | 2 | 34.5 | 27 | N | 13 | 48.9 | 27 | N | 21 | 17 | 27 | N | 23 | 19.2 |
| 28 | S | -18 | 12.4 | 28 | S | -7 | 59.1 | 28 | N | 2 | 57.9 | 28 | N | 14 | 7.9 | 28 | N | 21 | 26.9 | 28 | N | 23 | 16.6 |
| 29 | S | -17 | 56.5 | | | | | 29 | N | 3 | 21.3 | 29 | N | 14 | 26.7 | 29 | N | 21 | 36.4 | 29 | N | 23 | 13.6 |
| 30 | S | -17 | 40.2 | | | | | 30 | N | 3 | 44.6 | 30 | N | 14 | 45.2 | 30 | N | 21 | 45.5 | 30 | N | 23 | 10.2 |
| 31 | S | -17 | 23.6 | | | | | 31 | N | 4 | 7.9 | | | | | 31 | N | 21 | 54.2 | | | | |

G = grados
M = minutos

DEPARTAMENTO DE INVESTIGACIÓN Y SERVICIOS HÍDRICOS
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| JULIO | | | | AGOSTO | | | | SEPTIEMBRE | | | | OCTUBRE | | | | NOVIEMBRE | | | | DICIEMBRE | | | |
|-------|---|----|------|--------|---|----|------|------------|---|----|------|---------|---|-----|------|-----------|---|-----|------|-----------|---|-----|------|
| DIA | | G | M | DIA | | G | M | DIA | | G | M | DIA | | G | M | DIA | | G | M | DIA | | G | M |
| 1 | N | 23 | 6.4 | 1 | N | 18 | 1.5 | 1 | N | 8 | 17.7 | 1 | S | -3 | 9.9 | 1 | S | -14 | 24.4 | 1 | S | -21 | 47.3 |
| 2 | N | 23 | 2.2 | 2 | N | 17 | 46.3 | 2 | N | 7 | 55.9 | 2 | S | -3 | 33.2 | 2 | S | -14 | 43.6 | 2 | S | -21 | 56.4 |
| 3 | N | 22 | 57.6 | 3 | N | 17 | 30.7 | 3 | N | 7 | 34 | 3 | S | -3 | 56.4 | 3 | S | -15 | 2.4 | 3 | S | -22 | 5.1 |
| 4 | N | 22 | 52.6 | 4 | N | 17 | 14.9 | 4 | N | 7 | 11.9 | 4 | S | -4 | 19.6 | 4 | S | -15 | 21.1 | 4 | S | -22 | 13.4 |
| 5 | N | 22 | 47.2 | 5 | N | 16 | 58.8 | 5 | N | 6 | 49.7 | 5 | S | -4 | 42.7 | 5 | S | -15 | 39.4 | 5 | S | -22 | 21.3 |
| 6 | N | 22 | 41.3 | 6 | N | 16 | 42.5 | 6 | N | 6 | 27.4 | 6 | S | -5 | 5.7 | 6 | S | -15 | 57.6 | 6 | S | -22 | 28.7 |
| 7 | N | 22 | 35.1 | 7 | N | 16 | 25.8 | 7 | N | 6 | 5 | 7 | S | -5 | 28.7 | 7 | S | -16 | 15.4 | 7 | S | -22 | 35.7 |
| 8 | N | 22 | 28.5 | 8 | N | 16 | 8.9 | 8 | N | 5 | 42.5 | 8 | S | -5 | 51.7 | 8 | S | -16 | 33 | 8 | S | -22 | 42.3 |
| 9 | N | 22 | 21.5 | 9 | N | 15 | 51.8 | 9 | N | 5 | 19.9 | 9 | S | -6 | 14.5 | 9 | S | -16 | 50.3 | 9 | S | -22 | 48.4 |
| 10 | N | 22 | 14.2 | 10 | N | 15 | 34.4 | 10 | N | 4 | 57.3 | 10 | S | -6 | 37.3 | 10 | S | -17 | 7.3 | 10 | S | -22 | 54.1 |
| 11 | N | 22 | 6.4 | 11 | N | 15 | 16.7 | 11 | N | 4 | 34.5 | 11 | S | -6 | 60 | 11 | S | -17 | 24 | 11 | S | -22 | 59.3 |
| 12 | N | 21 | 58.3 | 12 | N | 14 | 58.8 | 12 | N | 4 | 11.7 | 12 | S | -7 | 22.5 | 12 | S | -17 | 40.5 | 12 | S | -23 | 4 |
| 13 | N | 21 | 49.8 | 13 | N | 14 | 40.7 | 13 | N | 3 | 48.7 | 13 | S | -7 | 45 | 13 | S | -17 | 56.6 | 13 | S | -23 | 8.3 |
| 14 | N | 21 | 40.9 | 14 | N | 14 | 22.3 | 14 | N | 3 | 25.8 | 14 | S | -8 | 7.4 | 14 | S | -18 | 12.4 | 14 | S | -23 | 12.2 |
| 15 | N | 21 | 31.6 | 15 | N | 14 | 3.7 | 15 | N | 3 | 2.7 | 15 | S | -8 | 29.6 | 15 | S | -18 | 27.9 | 15 | S | -23 | 15.5 |
| 16 | N | 21 | 22 | 16 | N | 13 | 44.9 | 16 | N | 2 | 39.6 | 16 | S | -8 | 51.8 | 16 | S | -18 | 43 | 16 | S | -23 | 18.5 |
| 17 | N | 21 | 12 | 17 | N | 13 | 25.9 | 17 | N | 2 | 16.5 | 17 | S | -9 | 13.8 | 17 | S | -18 | 57.8 | 17 | S | -23 | 20.9 |
| 18 | N | 21 | 1.7 | 18 | N | 13 | 6.6 | 18 | N | 1 | 53.3 | 18 | S | -9 | 35.7 | 18 | S | -19 | 12.3 | 18 | S | -23 | 22.9 |
| 19 | N | 20 | 51 | 19 | N | 12 | 47.2 | 19 | N | 1 | 30 | 19 | S | -9 | 57.4 | 19 | S | -19 | 26.5 | 19 | S | -23 | 24.4 |
| 20 | N | 20 | 39.9 | 20 | N | 12 | 27.5 | 20 | N | 1 | 6.8 | 20 | S | -10 | 19 | 20 | S | -19 | 40.3 | 20 | S | -23 | 25.4 |
| 21 | N | 20 | 28.6 | 21 | N | 12 | 7.7 | 21 | N | 0 | 43.5 | 21 | S | -10 | 40.4 | 21 | S | -19 | 53.7 | 21 | S | -23 | 26 |
| 22 | N | 20 | 16.8 | 22 | N | 11 | 47.6 | 22 | N | 0 | 20.2 | 22 | S | -11 | 1.7 | 22 | S | -20 | 6.8 | 22 | S | -23 | 26.1 |
| 23 | N | 20 | 4.7 | 23 | N | 11 | 27.4 | 23 | N | 0 | 3.2 | 23 | S | -11 | 22.8 | 23 | S | -20 | 19.5 | 23 | S | -23 | 25.7 |
| 24 | N | 19 | 52.3 | 24 | N | 11 | 7 | 24 | N | 0 | 26.5 | 24 | S | -11 | 43.8 | 24 | S | -20 | 31.8 | 24 | S | -23 | 24.9 |
| 25 | N | 19 | 39.6 | 25 | N | 10 | 46.4 | 25 | N | 0 | 49.9 | 25 | S | -12 | 4.6 | 25 | S | -20 | 43.8 | 25 | S | -23 | 23.6 |
| 26 | N | 19 | 26.5 | 26 | N | 10 | 25.6 | 26 | S | -1 | 13.3 | 26 | S | -12 | 25.1 | 26 | S | -20 | 55.4 | 26 | S | -23 | 21.8 |
| 27 | N | 19 | 13.1 | 27 | N | 10 | 4.7 | 27 | S | -1 | 36.6 | 27 | S | -12 | 45.5 | 27 | S | -21 | 6.6 | 27 | S | -23 | 19.5 |
| 28 | N | 18 | 59.4 | 28 | N | 9 | 43.6 | 28 | S | -1 | 60 | 28 | S | -13 | 5.7 | 28 | S | -21 | 17.3 | 28 | S | -23 | 16.8 |
| 29 | N | 18 | 45.4 | 29 | N | 9 | 22.4 | 29 | S | -2 | 23.3 | 29 | S | -13 | 25.7 | 29 | S | -21 | 27.7 | 29 | S | -23 | 13.6 |
| 30 | N | 18 | 31.1 | 30 | N | 9 | 1 | 30 | S | -2 | 46.6 | 30 | S | -13 | 45.5 | 30 | S | -21 | 37.7 | 30 | S | -23 | 10 |
| 31 | N | 18 | 16.4 | 31 | N | 8 | 39.4 | | | | | 31 | S | -14 | 5.1 | | | | | 31 | S | -23 | 5.9 |

G = grados

M = minutos