

# Forty-eight Years (1969–2016) of Climatological Data:

NMSU Agricultural Science Center at Farmington, New Mexico

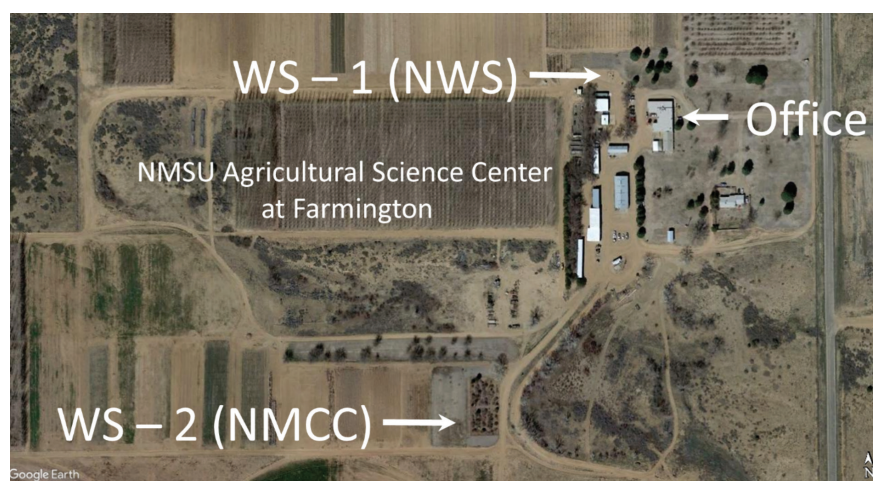
M.K. O'Neill, D. Smeal, M.M. West, S.C. Allen, and K. Djaman<sup>1</sup>

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**Figure 1.** Satellite view showing locations of the two weather stations at the NMSU Agricultural Science Center at Farmington (Google Earth, 2015).

Plant growth and crop production are intrinsically linked to climate and daily weather conditions. Climate determines the types of plants that can be grown in a particular area and the management techniques required for successful landscapes and agricultural sustainability. Weather affects crop water requirements; the timing of planting, cultivation, fertilization, and harvest; crop tolerance to diseases and pests; total crop yield; and product quality. Agricultural and landscape planning begins with a thorough understanding of a locale's climate. To help provide this understanding for the Four Corners region, daily weather observations have been made since 1969 at the New Mexico State University (NMSU) Agricultural Science Center at Farmington (ASCF). ASCF is located in northwestern New Mexico ( $36^{\circ}4'$  N lat.,  $108^{\circ}2'$  W long.) about seven miles southwest of Farmington at an elevation of 5,640 feet above mean sea level. Two weather data recording stations are located at ASCF (Figure 1). Station 1 (WS-1) was established on bare soil about 150 feet west-northwest of the ASCF office building in January 1969 and was given an official designation by the National Weather Service (NWS) in 1978. Station 2 (WS-2) was installed in an alfalfa-grass field approximately 400 yards south of WS-1 in 1985 (Figure 1). This is an automated, computer-linked station that is operated and maintained by the New Mexico Climate Center (NMCC) at NMSU in Las Cruces. This report summarizes weather observations from these stations from 1969 through 2016.

<sup>1</sup>Respectively, Professor (retired), Department of Plant and Environmental Sciences (PES); College Professor (retired), PES; Agricultural Research Scientist, Agricultural Science Center at Farmington (ASCF); Agricultural Research Scientist, ASCF; and Assistant Professor, ASCF, New Mexico State University.

## SUMMARY

ASCF is located near the geographic center of the Southwest Climate Region of the U.S. (National Centers for Environmental Information, 2017) in United States Department of Agriculture (USDA) plant hardiness zone 7a (USDA–ARS, 2017; PlantMaps, 2017), while the Sunset Western Garden Collection (2017) includes ASCF in Climate Zone 3A and the American Horticultural Society (2017) has ASCF in Heat Zone 7. Compared to the mountainous areas that surround it, the climate at ASCF is relatively dry and mild. Summer days of June and July are typically warm (avg. 90–92°F) and dry, while nights are cool (avg. 56–62°F). During the winter months of December and January, air temperatures commonly fall below 20°F in the early morning, while daytime highs typically average between 37 and 46°F. The frost-free period averages 163 days from mid-April to early November, but crops such as potatoes, corn, spring cereals, etc. are frequently planted before May 1. Throughout the year, days are typically clear and sunny. When precipitation events occur, they are usually of short duration and deposit less than 0.10 inch of rain per event. During the winter, snows are infrequent, and accumulated snow depths greater than a few inches are rare. Total annual precipitation averages slightly more than 8 inches, with about half of the total occurring in the four-month period of July–October. Twenty-four-hour precipitation depths exceeding one inch have occurred 17 times during the entire 48 years of record. Compared to southern and eastern New Mexico, winds are relatively calm during the summer and winter, averaging 103 miles per day (MPD) (4.3 miles per hour [MPH]) between July and January. From February through May, strong westerly winds are common, and average wind velocity increases to about 134 MPD (5.6 MPH).

## MATERIALS AND METHODS

### Weather Station 1

WS-1 (Figure 2) air temperature measurements were recorded from standard U.S. Weather Bureau maximum (mercury) and minimum (alcohol) thermometers housed in a regulation, wooden, louvered instrument shelter until March 2005. From March 2005 onward, air temperatures have been recorded with a Nimbus PL digital-style thermometer housed in a plastic, cylindrical, stacked-plate radiation shield. A standard 8-inch-diameter rain gauge has been used since January 1969 to measure total daily precipitation. A battery-operated, constant-reading rain gauge was installed in 1982 to measure precipitation rate. Wind movement in miles per day has been recorded at two heights since 1980 using standard three-cup anemometers. One is located



**Figure 2.** Southwest view of the NWS weather station (WS-1) at the NMSU Agricultural Science Center at Farmington, NM, in January 2013.

6 inches above a standard Class-A metal evaporation pan, while the other is set at a height of 6 feet above the soil surface.

Water evaporation from a Class-A pan (PAN) was measured daily with a hook gauge from May 1 through September 30 in all years from 1974 to 2016. PAN measurements were also recorded for most days in April from 1977 to 1981, 1984 to 1986, and 1989 to 2016. October measurements were recorded in 1972, 1974 to 1979, 1981, 1984, 1985, 1987, 1988, and 1990 to 2016.

Maximum and minimum bare-soil temperatures at a depth of 4 inches have been recorded since 1976 using buried temperature sensors. The soil type is a Doak fine sandy loam with about 70% sand, 20% silt, and 10% clay.

From January 1977 to September 1996, global (direct and diffuse) solar radiation was measured with a star pyranometer set at a height of 6.5 feet near the WS-1 instrument shelter. Subsequent measurements were made with a LI-COR pyranometer set at a 10-foot height at WS-2.

Relative humidity (RH) data were recorded from 1980 to 1989 with hygrothermographs set in the WS-1 instrument shelter. From 1990 to 2016, RH was monitored with temperature/RH probes housed in a plastic, cylindrical, louvered shelter 6 feet above the ground at WS-2.

Data recorded at WS-1 are summarized on the Western Regional Climate Center website (<http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?nm3142>) and the ASCF website (<http://farmingtonsc.nmsu.edu/weather-daily-data.html>).



**Figure 3. Southwest view of the NMCC weather station (WS-2) at the NMSU Agricultural Science Center at Farmington, NM, in January 2013.**

### **Weather Station 2**

The NMCC weather station (Figure 3) consisted of air temperature, RH, solar radiation, wind speed, wind direction, soil temperature, and rain depth sensors wired to a Campbell Scientific CR10 data logger until 2015. In June 2015, a newer Campbell Scientific CR1000 data logger was installed for all sensors. The data logger, powered by a 12-volt, deep-cycle, lead-acid battery, and all sensors were mounted to a 10-foot-high steel and aluminum tripod. A solar panel provided recharge to the battery. Measurements were recorded to the data logger every hour, and the data were downloaded to a PC at the NMCC via modem and telephone line until 2015, when data began wireless transmission to an on-site network computer system. PAN measurements were also taken from a standard Class-A evaporation pan installed at WS-2 from 1985 through 1994. All data except PAN from WS-2 are accessible from the NMCC website (<http://weather.nmsu.edu>).

### **Data Adjustment**

From January 1, 1969, to March 31, 1980, weather data from WS-1 were recorded at 4:30 p.m. Mountain Time (MT). From April 1, 1980, onward, WS-1 data were recorded at 8:00 a.m. MT. In preparing this report, various assumptions (and data adjustments) were made based on these recording times. When recording occurred at 4:30 p.m., it was assumed that both minimum and maximum temperature and RH occurred on the day of record. Likewise, PAN, solar radiation (when recorded at WS-1), and wind run are also reported as occurring on the day of record even though a significant portion of the 24-hour totals for these parameters could have occurred the previous day between 4:30 p.m. and midnight.

When data were recorded at 8:00 a.m., it was assumed that minimum temperature and maximum RH occurred on the day of record (i.e., after midnight). It was assumed that maximum temperature, minimum RH, total solar radiation, and total wind run occurred on the previous day, and the records in this report for WS-1 reflect these assumptions. Data recorded from WS-2 reflect parameter summaries or totals from midnight to midnight and did not require adjustments.

Only temperature and precipitation measurements were made every day for the entire 48-year period, at WS-1. The other parameters were measured for either a portion of this time span (e.g., wind, solar radiation) or for selected days during the year (e.g., PAN evaporation). Monthly averages shown in the summary tables in this report represent means of all reliable values recorded for each day within a month. Monthly means are not shown for months in which reliable daily measurements were not recorded or were missing due to instrument malfunctions, etc.

In the original data records for WS-1, PAN measurements were entered as differences in hook gauge readings from one day to the next, without adjustments for precipitation. In this report, PAN data reflect hook gauge reading differences plus adjustments for precipitation that occurred between readings.

## **RESULTS**

### **Daily Averages**

#### **Temperature and Precipitation**

Tables 1 through 12 summarize average and extreme air temperatures (highest and lowest) and maximum precipitation depth recorded for each day of each month at WS-1 from 1969 through 2016. The number of years in which measurable (at least 0.01 inch) precipitation was recorded for each day during the 48-year period is also shown, as well as the total cumulative depth for that day over the period. These records provide a base of reference for determining how subsequent daily temperature or precipitation measurements compare to averages or extremes for the previous 48-year period (i.e., new records, etc.). Average daily high temperatures ranged from 41°F in January and 42°F in December to 91°F in July (Table 19 and Figure 4). The highest temperature recorded at WS-1 over the 48-year period was 103°F and occurred on the dates of June 30, 1990 (Table 6); July 6, 1989; July 15, 2003; and July 21, 2005 (Table 7). A few notable periods with consecutive record-breaking high temperatures occurred from July 9 to July 26 in both 2003 and 2005 (Table 7). The lowest temperature of -18°F was recorded on January 7, 1971 (Table 1). Notable cold periods with subzero temperatures occurred from January 5 to 9, 1971 (Table 1); February

6 to 7, 1989 (Table 2); December 7 to 11, 1978 (Table 12); and December 23 to 27, 1990 (Table 12).

The highest 24-hour precipitation accumulation of 1.93 inches was recorded on September 6, 1970 (Table 9). Daily precipitation of greater than 1 inch was recorded on only 16 other dates during the entire 48-year period. Notable multi-day periods of significant precipitation occurred April 3 to 4, 1997 (1.88 inches), and July 19 to 22, 1986 (2.66 inches). The two wettest days of the year, raining on the date 17 times (35% of the 48 years), were August 20 with a cumulative total depth of 4.11 inches (Table 8) and September 12 with a cumulative total depth of 4.10 inches (Table 9). August 23 has the greatest cumulative (48-year) total of 4.37 inches over 15 rainfall events (Table 8). Precipitation has not occurred on the leap year date of February 29 (Table 2) or on May 30 (Table 5).

### Wind Run

Tables 13a and 13b display the average and maximum recorded 24-hour wind run and the calculated average miles per hour (avg. 24-hour wind run / 24) measured at a height of 6 feet from 1980 to 2016 at WS-1. High average wind runs in excess of 160 MPD (6.7 MPH) have occurred on March 17, March 26, April 2, April 18, and April 25 (Table 13a). September had the lowest average wind run with 99 MPD and 4.1 MPH (Table 13b). From 1985 to 2011, daily wind speed recorded at a height of 6 feet at WS-1 averaged 80% of that recorded at a height of 10 feet at WS-2 (Figure 5). While part of the difference can be attributed to the logarithmic wind speed profile (i.e., inherent wind speed differences with height), prevailing south and southwest winds are partially blocked by trees and other obstructions near WS-1 (Figures 1 and 2), whereas WS-2 has a south and southwest fetch of several hundred yards (Figures 1 and 3).

### Relative Humidity

In simple terms, RH refers to the ratio of the amount of water vapor in the air compared to the amount of water vapor that would result in saturation of that air at the same temperature and pressure expressed as a percentage. At 100% RH, the air is saturated and water condenses (changes from a vapor to liquid). Average daily RH from 1980 through 2016 ranged from 33% in June to 63% in December (Tables 14a and 14b). The average daily maximum RH usually occurred in the early morning and exceeded 85% for most days in December and January, but averaged less than 53% in mid-June. The average daily minimum RH generally occurred during the warmest part of the day in mid-afternoon and was less than 16% for all days in June (Table 14a). Highest average minimum daily RH of greater than 40%

occurred on most days in December (Table 14b) and January (Table 14a).

### Solar Radiation

Solar radiation was measured in Langleys per day. A Langley (Ly) is a unit of energy equal to 1 calorie per square centimeter (cal/cm<sup>2</sup>), and 1 Ly/day is equal to 0.1536 BTU/ft<sup>2</sup>/hour (USDA–NRCS, 2017a). The average number of Ly/day ranged from 182 on December 21 to 693 on June 22 (Table 15). Since skies are generally clear most days of the year in northwestern New Mexico, these two dates correspond with the dates of winter and summer solstices (December 20–21 and June 20–21, respectively). Solar radiation at the equinoxes (March 20–21 and September 22–23) averaged about 437 Ly/day (Table 15). Total solar radiation per month ranged from a low of 6,333 Ly in December (mean = 204 Ly/day) to 19,651 Ly in June (mean = 655 Ly/day; Table 15 and Figure 6). Total Langleys per year averaged 13,100.

### PAN Evaporation

Evaporation is affected by temperature, wind speed, relative humidity, and solar radiation. With appropriate correction factors, it is sometimes used as an index of plant water use. Average daily PAN at WS-1 between April 1 and October 31 from 1972 to 2016 ranged from less than 0.20 inch/day in late October to greater than 0.45 inch/day from mid-June to mid-July (Table 16). The greatest average (44-year) daily PAN of 0.50 inch/day occurred on June 22. Average PAN per month ranged from 5.09 inches in October to 12.97 inches in June and totaled 68.59 inches from April through October. Despite the higher average wind speed at WS-2, PAN measurements taken from the WS-1 pan, which was situated over bare soil, averaged 18% greater (from 1985 to 1994) than PAN measurements taken from the pan situated over vegetation (alfalfa or grass) at WS-2 (Figure 7).

### Soil Temperature

Since seeds require a minimum soil temperature for successful germination, soil temperature (ST) is an important factor to consider when determining when to plant agronomic and horticultural crops. While seeds of small grain crops such as wheat and barley and cool-season vegetables such as spinach, radishes, and peas may germinate at ST of less than 45°F, crops such as corn, melons, squash, dry beans, and chile germinate best at ST above 55 or 65°F (Flynn et al., 2002; Pathak et al., 2012). Sixteen-year average maximum daily ST at 4 inches deep reached 66°F at WS-1 during the third week in April, and the average minimum nighttime ST stayed consistently above 60°F after May 15 (Table 17a). Average mean daily ST of 87°F was consistently exceeded from the end of the second week in July to the fourth

week of July, while average maximum daytime ST was greater than 96°F during this same time period (Table 17b). In the fall, average maximum daily ST dropped below 65°F by about mid-October and was at 32°F or below from December 26 to January 23 (Tables 17a and 17b).

To evaluate the effects of vegetative cover on ST, average daily ST calculated at WS-1 from 2001 to 2016 was compared to that calculated at WS-2 for the same time period. Average daily ST at WS-1 (bare soil) was greater than that at WS-2 (vegetative cover) from about mid-March through mid-October and less than that at WS-2 from about mid-November through mid-February (Figure 8). Maximum average ST at WS-2 did not exceed 75°F during the summer and did not fall below 32°F in the winter (Figure 8).

### Freeze-free Periods

The freeze-free period (consecutive days above 32°F) averaged 163 days over the 48 years (Table 18). The shortest freeze-free period of 115 days occurred in 1999, the only year in which a June freeze was recorded. The longest frost-free period of 193 days occurred in 1977. The average dates of the last spring freeze and first autumn freeze were May 5 and October 14, respectively. The earliest and latest dates of the last spring freeze were April 10, 1990, and June 5, 1999, respectively. The earliest and latest dates of the first fall freeze were September 18, 1971, and November 12, 1988, respectively (Table 18). The number of consecutive days without a killing freeze (28°F or less) averaged 184. A killing freeze results in substantial damage to most plants. A temperature of 28°F for more than 30 minutes, for example, will kill approximately 10% of apple or cherry blossoms during flowering (Longstroth, 2001).

### Growing Degree Days

Growing degree days (GDD) or heat units are used to rate or predict the growth or development stage of plants or insects. Plant development is related to temperature, and each crop has an optimal temperature range for growth. That is, there is a minimum temperature below which plants will not grow (minimum cutoff or base temperature) and a maximum temperature at which plant growth rate will stabilize or decrease (maximum cutoff temperature). The average daily temperature (mean of daily minimum and maximum temperatures) minus the base temperature is equal to GDD for that day. However, if the observed minimum temperature for the day is less than the minimum cutoff temperature ( $CO_{min}$ ), then it is set equal to  $CO_{min}$ . Correspondingly, if the observed maximum temperature exceeds the maximum cutoff temperature ( $CO_{max}$ ), then it is set equal to  $CO_{max}$ , prior to calculating the average. In corn, the base temperature and  $CO_{min}$  are 50°F and

$CO_{max}$  is 86°F (Eckert, 2017). In alfalfa, the base temperature and  $CO_{min}$  are 41°F and  $CO_{max}$  is 110°F (Lee et al., 2010). Alfalfa and corn GDD (using 48-year average temperature data) began to accumulate in February and March, respectively (Figure 9), totaling about 5,600 for alfalfa and 3,600 for corn for the entire year. Usually, corn is not planted until about May 1, so the accumulation of 400 GDD between January 1 and May 1 should not be considered in the total for corn.

### Reference Evapotranspiration

Evapotranspiration (ET) refers to the volume of water used by a crop during a given time period. It includes water that is actively transported through the plant from the roots to leaves during transpiration and water that is lost from plant and soil surfaces through evaporation. If crops are healthy and soil moisture is not limiting, plant size and weather (solar radiation, air temperature, humidity, and wind speed) are the primary factors affecting crop ET (Allen et al., 1998). Reference ET (ETos or ETrs, for example) refers to the ET of a reference crop such as grass (ETos) or alfalfa (ETrs) that is of a certain height and is growing under optimal conditions for maximum production. Since measured reference ET has been correlated with measurements of the weather parameters referred to above, it can be calculated when these parameters are available. Correction values or crop coefficients (Kc), if available, can be applied to reference ET to estimate a particular crop's actual ET rate or water requirement throughout the growing season. These estimates can be used in irrigation scheduling.

An Excel spreadsheet developed by Snyder and Eching (2007) was used to calculate standardized grass (ETos) and alfalfa (ETrs) reference ET with inputs of daily average air temperature (recorded from WS-1) and SR, RH, and wind (recorded from WS-2) from 1985 through 2016. Both ETos and ETrs were less than 0.10 inch/day in January and December (Figure 10). At about the beginning of the growing season (May 1–10), ETos ranged from 0.20 to 0.25 inch/day and ETrs ranged from 0.30 to 0.35 inch/day. Peak ETos and ETrs occurred from June 26 to July 5 and averaged 0.30 and 0.41 inch/day, respectively (Figure 10). Cumulative annual reference ET averaged 60 inches for ETos and 84 inches for ETrs.

### Monthly and Yearly Averages Temperature

The coldest month of the year has been January, with average daily maximum, mean, and minimum temperatures of 41.1°F, 30.1°F, and 19.1°F, respectively (Tables 19, 20, and 21). The warmest month has been July, with average daily maximum, mean, and minimum air temperatures of 90.9°F, 75.7°F, and 60.5°F, respectively. The average daily maximum, mean, and minimum an-

nual temperatures were 66.4°F, 52.7°F, and 38.9°F, respectively (Tables 19, 20, and 21). The warmest year on record was 2003, when the average daily maximum and mean were 69.2°F and 54.7°F, respectively (Tables 19 and 20, Figure 11). There was a statistically significant linear trend of increasing average annual maximum, mean, and minimum temperatures from 1969 to 2016 of 0.0384°F/yr, 0.0382°F/yr, and 0.0385°F/yr, respectively (Figure 11 and Table 29). This translates into an increase in temperature of 1.8°F over the 48-year period being reported, higher than the 1.5°F increase in global temperatures reported by the National Oceanic and Atmospheric Administration (NOAA) over the past five decades (Dahlman, 2017) and **140% greater than the global temperature increase of 1.8°F** over the last 115 years (1901–2016) (U.S. Global Change Research Program, 2017). Increased annual mean temperature has regional ramifications on snow pack in the San Juan Mountains. **Since 1979, snowpack water equivalence has decreased 2 inches per year, resulting in an 80-inch decrease over the 38-year period through 2016** (USDA–NRCS, 2017b). Snow melt from the San Juan Mountains is the source for most irrigation, municipal, industrial, and domestic water across the four states in the Four Corners region. San Juan Mountain snowpack is the principal source of water not only in the Four Corners region but also in downstream states that rely on this water as a significant contributor since 60% of the surface water passing through New Mexico is from the San Juan River Basin.

### Precipitation

Total monthly precipitation averaged slightly over 1 inch in August and September, the two wettest months of the year, to less than 0.26 inch in June, the driest month of the year (Table 24). Average annual precipitation was 8.04 inches, and ranged from a high of 14.58 inches in 1986 to a low of 3.57 inches in 1976 (Table 24). Accurate and regular snowfall measurements did not appear to be taken prior to 1987. From 1987 through 2016, the greatest total monthly snow depths of 19.0 inches (two events at 9.5 inches average per event) and 21.3 inches (5 events at 4.3 inches average per event) occurred in December and February, respectively, during 1987 (Table 25). December has a slightly higher average measurable snow frequency (3.3 days/month) than January or February. February has the highest average total depth of snow at 4.0 inches (Table 25).

### Evaporation and Reference Evapotranspiration

Total monthly ETos during the growing season months averaged 5.9 inches in April to 4.0 inches in October (Figure 12). Average monthly ETrs and PAN had a similar distribution, with ETrs ranging from 8.4 inches to 5.8 inches in April through October and PAN ranging

from 8.6 inches in April to 5.8 inches in October (Figure 12 and Table 26).

### Growing Degree Days

Total monthly growing degree day accumulations were calculated for corn with a base temperature of 50°F and a maximum temperature of 86°F, while the base temperature for alfalfa was 41°F and the maximum temperature was 110°F. Cumulated growing degree days (CGDD) averaged 255 for alfalfa in March. In April, CGDD were 239 for corn and 374 for alfalfa, and monthly CGDD peaked in July at 721 for corn and 1,075 for alfalfa. Total CGDD throughout the season (March–October) were 3,516 and 5,358 for corn and alfalfa, respectively (Figure 13).

### Wind Run

Since 1980, wind run measured at a height of 6 feet has averaged 114 MPD (4.8 MPH), ranging from a low of 61 MPD (2.5 MPH) in 2015 to a high of 142 MPD (5.9 MPH) in 1990 and 1996 (Table 26). On a monthly basis, daily wind run has averaged from 148 MPD (6.1 MPH) in April (generally the windiest month) to 100 MPD (4.1 MPH) in the calmest months of August through October (Table 27).

### Solar Radiation

From 1977 through 2016, daily solar radiation has averaged 429 Ly/day, ranging from a low of 347 Ly/day in 1979 to a high of 482 Ly/day in 2003 and 2008 (Table 28). Maximum solar radiation is during the summer months of June (650 Ly/day) and July (614 Ly/day), while the least amount of solar radiation is during December (205 Ly/day) and January (223 Ly/day).

### Polynomial Regression Data Fit

To facilitate climatological modeling, polynomial regression (CoStat, 2008) was used to formulate the best line fits to daily data means shown in Figures 4 through 11 (Equations 1 through 16). Table 29 lists the coefficients that define these lines. Most equations were fitted to a fifth or sixth order polynomial equation. Annual maximum, mean, and minimum temperatures were fitted to a linear equation. Coefficients of determination ranged from a low of 0.142 for the line describing the trend of annual maximum temperatures to a high of 1.000 for the cumulative growing degree day equations.

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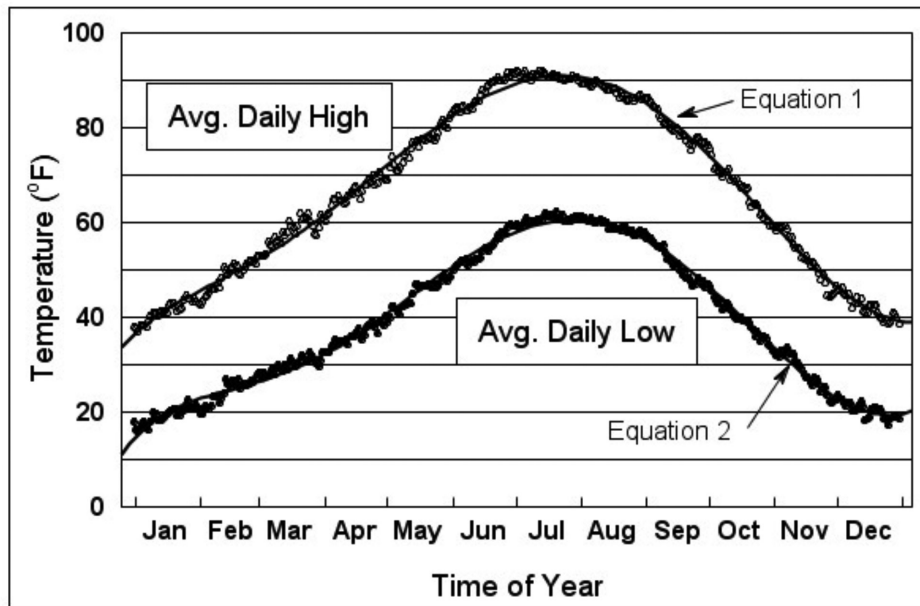


Figure 4. Average daily high and low temperatures at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016. See Table 29 for coefficients of best line fit describing equations 1 and 2.

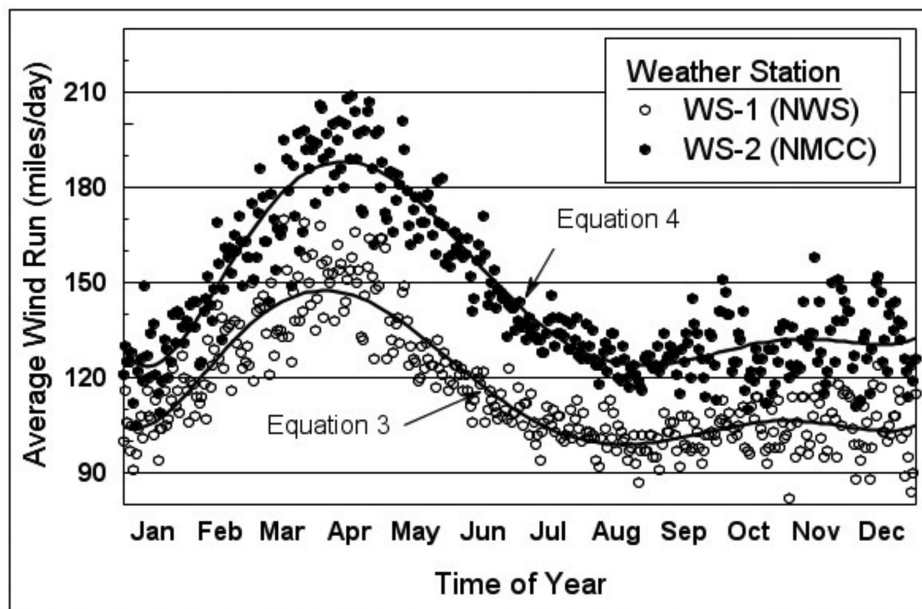


Figure 5. Average daily wind run measured at WS-1 and WS-2 at the NMSU Agricultural Science Center at Farmington, NM, 1980–2016. See Table 29 for coefficients of best line fit describing equations 3 and 4.



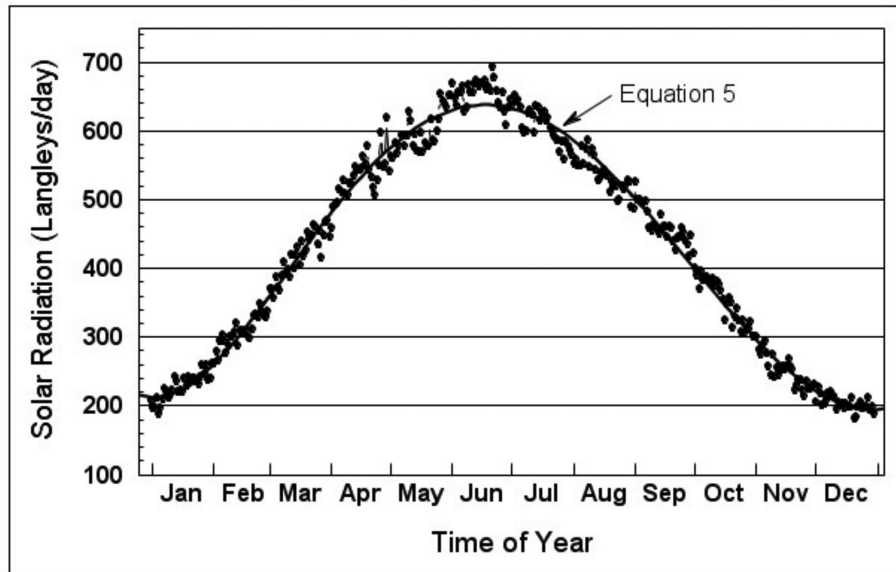


Figure 6. Average daily solar radiation at the NMSU Agricultural Science Center at Farmington, NM, 1972–2016. See Table 29 for coefficients of best line fit describing equation 5.

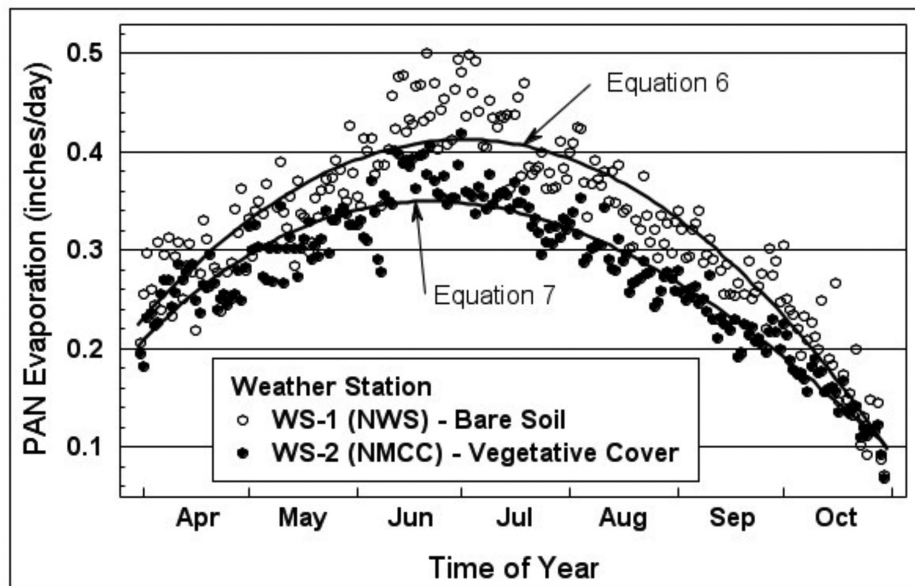


Figure 7. Average daily PAN evaporation measured at WS-1 and WS-2 at the NMSU Agricultural Science Center at Farmington, NM, 1985–1994. See Table 29 for coefficients of best line fit describing equations 6 and 7.

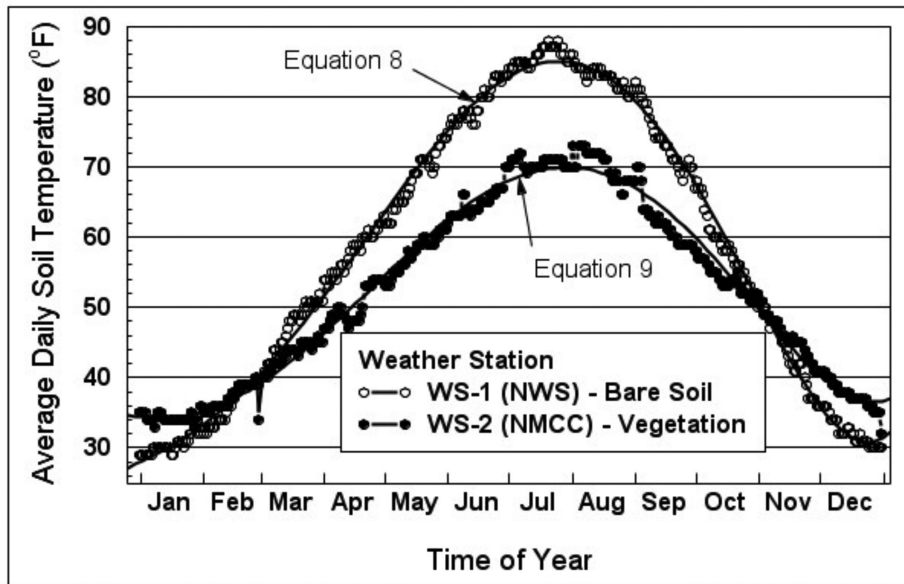


Figure 8. Average daily soil temperature measured at WS-1 and WS-2 at the NMSU Agricultural Science Center at Farmington, NM, 2001–2016. See Table 29 for coefficients of best line fit describing equations 8 and 9.

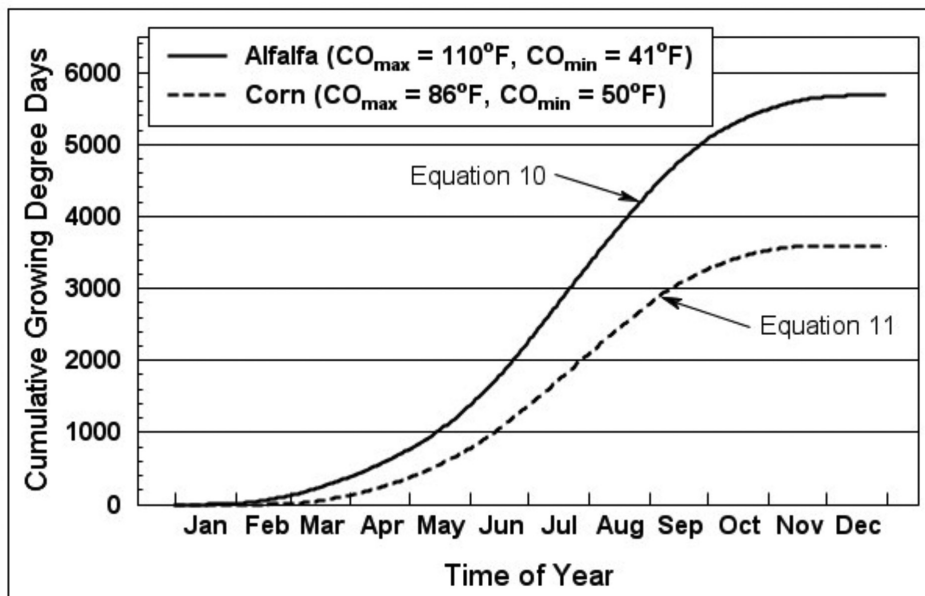


Figure 9. Cumulative average growing degree days for alfalfa and corn at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016. See Table 29 for coefficients of best line fit describing equations 10 and 11.

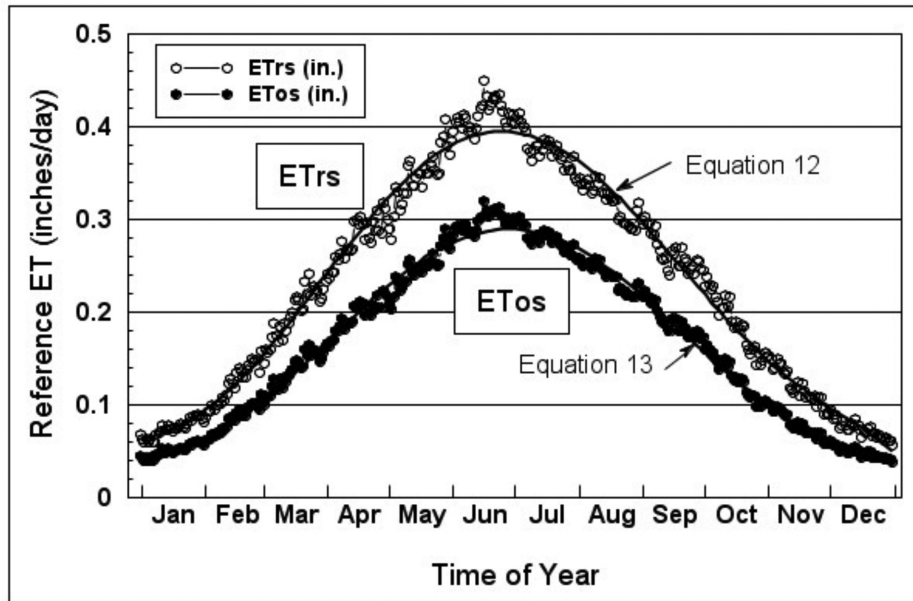


Figure 10. Average daily reference ET at the NMSU Agricultural Science Center at Farmington, NM, 1985–2016. See Table 29 for coefficients of best line fit describing equations 12 and 13.

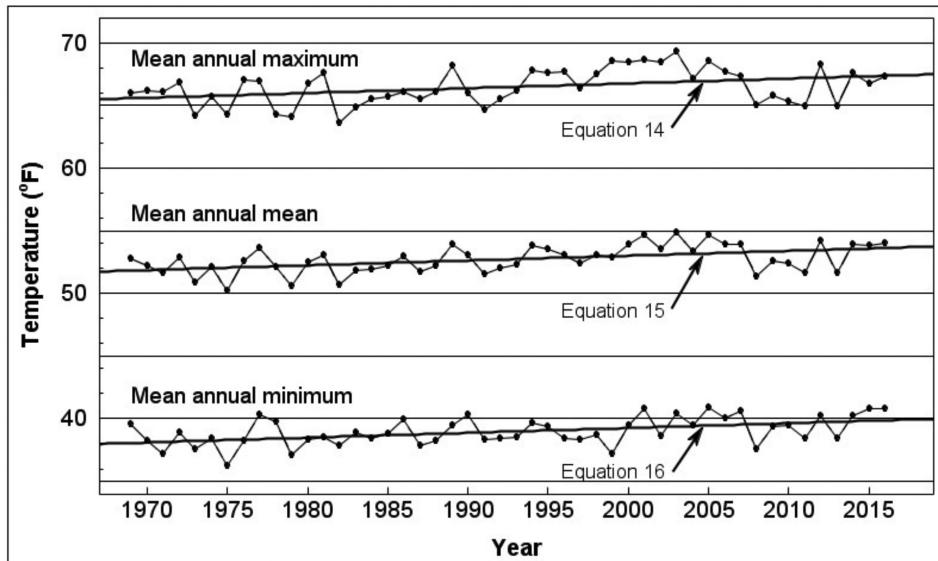


Figure 11. Average annual maximum, mean, and minimum air temperatures at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016. See Table 29 for coefficients of best line fit describing equations 14, 15, and 16.

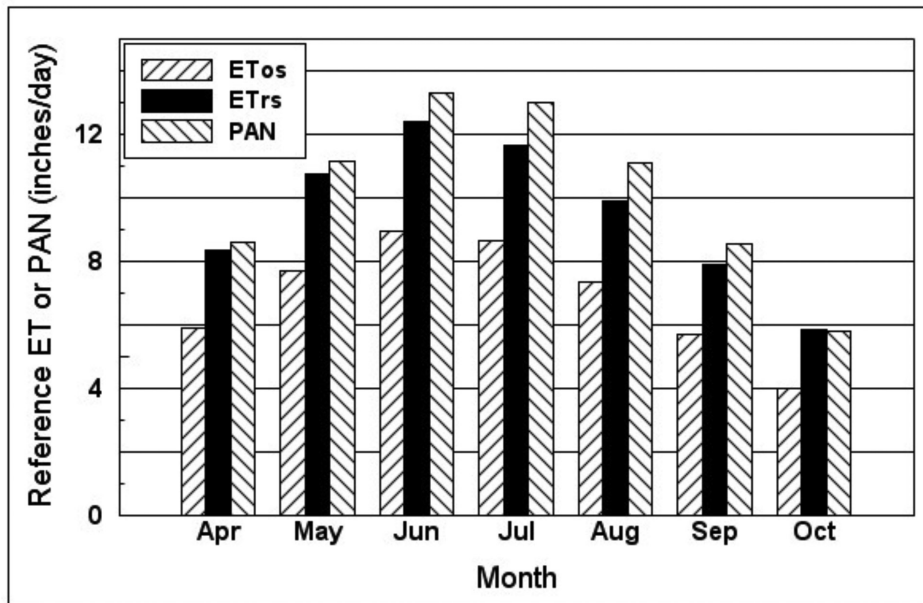


Figure 12. Average monthly grass reference ET (ETos), alfalfa reference ET (ETrs), and PAN evaporation at the NMSU Agricultural Science Center at Farmington, NM, 1985–2016.

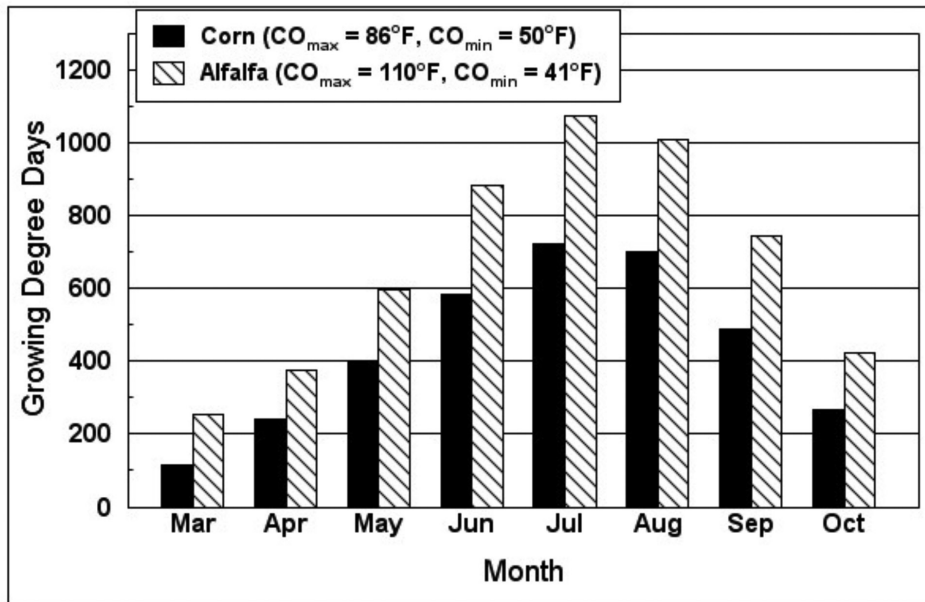


Figure 13. Average monthly growing degree days for corn and alfalfa at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016.

**Table 1. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each January Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)					Precipitation (inches)				
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*	Total for all Years
1 Jan	38	18	60	1981	-5	2011	0.30	1974	5	0.63
2 Jan	38	16	57	2006	-4	1976	0.19	1974	8	0.68
3 Jan	37	16	58	1997	-11	1974	0.26	2009	9	1.03
4 Jan	38	17	56	1987	-9	1974	0.19	1991	8	0.81
5 Jan	38	17	58	1994	-11	1971	0.35	1988	14	1.56
6 Jan	38	18	55	2003	-13	1971	0.12	1993	10	0.64
7 Jan	38	17	55	2006	-18	1971	0.45	1993	6	1.02
8 Jan	39	16	53	2003	-8	1971	0.17	1993	8	0.77
9 Jan	40	18	56	1996	1	1971	0.15	2001	6	0.39
10 Jan	41	20	57	2005	-2	1977	0.29	2005	7	0.68
11 Jan	41	19	56	2007	0	1977	0.07	1980	6	0.28
12 Jan	41	20	56	1990	-3	1988	0.26	1979	6	0.71
13 Jan	40	18	56	1986	0	1977	0.15	2015	7	0.42
14 Jan	41	18	59	1980	1	1977	0.01	1980, 1993	2	0.02
15 Jan	41	19	59	2000	-6	1997, 2013	0.29	1978	6	1.11
16 Jan	41	19	66	2000	-6	1997, 2013	0.28	1993	6	0.67
17 Jan	41	19	58	2000	-7	2008	0.41	1983	7	0.63
18 Jan	42	20	61	2000	-2	2008	0.80	1993	7	1.76
19 Jan	43	20	62	1999	-2	2008	0.18	2006	11	0.82
20 Jan	43	20	64	1986	3	1997	0.78	1980	11	1.48
21 Jan	42	21	57	2000	-2	1988	0.31	2010	5	0.45
22 Jan	41	19	55	1994, 2005	-2	1988	0.11	1969	5	0.32
23 Jan	42	19	58	1986	1	1973	0.26	1997	4	0.43
24 Jan	42	20	58	1999	5	1974	0.07	1989	7	0.21
25 Jan	44	20	62	1999	1	1988	0.29	1997	8	0.99
26 Jan	44	21	61	1972, 1975	5	1988	0.35	2013	9	0.98
27 Jan	44	22	59	2002	9	1979, 1988	0.94	1989	9	2.15
28 Jan	44	21	57	2003	0	1990	0.20	2013	6	0.57
29 Jan	43	20	63	1986	5	1974	0.27	2015	7	0.74
30 Jan	44	21	64	1986	-8	1979	0.61	2015	10	1.01
31 Jan	43	22	60	1971	0	1979	0.23	1978	9	1.29

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.

**Table 2. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each February Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)						Precipitation (inches)				
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*	Total for all Years	
1 Feb	43	20	59	1971	-1	1985	0.19	1996	5	0.35	
2 Feb	42	20	60	1995	0	2011	0.75	1988	6	0.94	
3 Feb	43	20	61	1995	-6	2011	0.36	2009	8	0.94	
4 Feb	44	21	58	2009	0	2011	0.23	1994	8	0.71	
5 Feb	44	21	60	2009	1	1985	0.07	1983	4	0.16	
6 Feb	45	21	62	2001, 2005	-7	1989	0.30	1986	5	0.41	
7 Feb	46	21	62	2009	-14	1989	0.28	2005	11	0.89	
8 Feb	46	23	62	1976, 2000, 2015	1	1974	0.62	2001	14	2.13	
9 Feb	46	23	66	1999, 2015	7	1982	0.34	2009	6	0.57	
10 Feb	47	23	61	1987, 1996	1	2011	0.11	1982	9	0.30	
11 Feb	46	22	61	1970	7	2011	0.47	2005	6	0.89	
12 Feb	48	23	61	1970	7	1999	0.20	2003	9	0.85	
13 Feb	50	24	63	1996, 1999, 2016	6	2004	0.09	1992	5	0.31	
14 Feb	50	27	63	1996, 2015	13	2004	0.41	1998	10	0.97	
15 Feb	49	26	66	1996	13	2002	0.17	1986	8	0.62	
16 Feb	50	25	64	1996	4	1990	0.17	1975, 1978	8	0.61	
17 Feb	50	27	66	1970, 1996, 2016	0	1978	0.16	2003	6	0.44	
18 Feb	51	26	66	2016	3	1978	0.39	2005	8	0.64	
19 Feb	51	26	65	1981	12	1978	0.21	1987	9	1.18	
20 Feb	49	27	65	1972, 1981, 1995, 2000	17	2009, 2012	0.26	1980	8	0.73	
21 Feb	49	25	68	1995	5	1971	0.30	2010	9	0.85	
22 Feb	50	25	64	1982, 2007	5	1971	0.17	2008	6	0.48	
23 Feb	50	26	66	1995	10	1975	0.35	2004	11	0.87	
24 Feb	51	25	67	1981	10	1974	0.43	1982	9	1.52	
25 Feb	52	26	69	1986, 2009	13	1971	0.81	1987	6	1.35	
26 Feb	52	27	70	1986	9	1971	0.21	2003	8	0.57	
27 Feb	52	26	69	1986	5	1971	0.34	2015	11	1.71	
28 Feb	51	27	67	2006	5	1971	0.34	2015	11	1.71	
29 Feb	57	29	68	1976	21	1995, 2000, 2012	0.00	n/a	0	0.00	

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.

**Table 3. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each March Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)					Precipitation (inches)				
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*	Total for all Years
1 Mar	53	28	69	2008	9	1987	0.60	2013	13	2.39
2 Mar	53	28	70	2009	8	2002	0.32	1981	7	0.99
3 Mar	53	27	68	1986, 1999, 2006	3	2002	0.35	1995	6	0.99
4 Mar	53	28	70	2000	6	2002	0.17	2014	7	0.63
5 Mar	53	28	68	1972, 1986, 2016	13	1997	0.30	1995	5	0.52
6 Mar	56	28	72	1972	9	1971	0.30	2000	3	0.34
7 Mar	55	28	70	1972	10	1971	0.77	2001	13	2.19
8 Mar	55	29	74	1989	17	1988, 1991	0.20	1973	7	0.65
9 Mar	57	28	79	1989	11	2002	0.41	2010	6	1.19
10 Mar	56	29	81	1989	15	1998	0.39	1981	10	1.57
11 Mar	56	30	74	1972	13	1969	0.43	1985	12	1.76
12 Mar	55	29	71	1972, 1989	11	1976	0.08	1975, 2009	6	0.26
13 Mar	58	28	74	1972, 2003	11	1976	0.36	1981	9	1.13
14 Mar	57	30	75	2007	9	1988	0.18	1991	7	0.40
15 Mar	58	29	74	1994, 2007, 2013	14	1971	0.22	1975	7	0.58
16 Mar	60	30	74	1994	17	1976	0.28	2001	6	0.80
17 Mar	59	31	76	2007	13	1980	0.16	1983	5	0.33
18 Mar	59	30	76	2007	11	1970	0.22	1987	6	0.67
19 Mar	58	30	76	2004	11	1970	0.27	1985	4	0.57
20 Mar	59	30	82	2004	18	2010, 2014	0.31	1983	7	0.87
21 Mar	62	31	78	2004	16	1976	0.33	1983	10	1.13
22 Mar	61	32	80	2004	19	1976	0.21	2000	6	0.48
23 Mar	61	32	75	2004	18	1975	1.13	2007	5	1.31
24 Mar	61	31	77	1998	13	1982	0.18	1983	4	0.47
25 Mar	62	31	77	2004	17	1969	0.05	2005	1	0.05
26 Mar	60	32	77	1971	16	1970	0.55	1982	10	1.82
27 Mar	59	32	77	1971, 1988	20	1975, 2009, 2016	0.39	1981	11	1.35
28 Mar	57	31	75	1986, 2015	9	1975	0.41	1985	13	1.67
29 Mar	57	30	76	1999, 2015	11	1975	0.25	1973	13	1.21
30 Mar	59	30	77	1971	13	1987	0.34	1992	9	0.88
31 Mar	62	31	79	1978	18	1995	0.32	2006	8	0.77

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.

**Table 4. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each April Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)						Precipitation (inches)				
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*	Total for all Years	
1 Apr	64	32	76	1996, 2002	18	1971, 1980	0.49	1986	10	1.38	
2 Apr	65	33	79	2011	16	1979	1.19	2004	10	2.57	
3 Apr	65	32	75	2002, 2005, 2006	19	1975	1.26	1997	8	2.10	
4 Apr	66	32	76	2002	20	1970	0.62	1997	7	1.20	
5 Apr	65	34	78	2002	19	1981	0.15	1984	5	0.25	
6 Apr	64	34	79	1991	19	2009	0.22	2002	6	0.60	
7 Apr	64	35	78	1978, 1989, 2005	25	1983, 2010, 2012	0.38	2004	7	0.64	
8 Apr	64	34	78	1977, 1989, 1996	18	1973, 1980	0.32	2016	6	0.86	
9 Apr	65	35	81	1977	20	1980	0.36	1978	6	0.88	
10 Apr	66	35	80	1972, 2012	21	1988, 1999, 2011	0.21	1979	6	0.53	
11 Apr	66	35	79	1998, 2012	20	1997	0.20	2009	7	0.56	
12 Apr	67	35	80	1992, 2006	19	1997	0.49	1975	7	0.90	
13 Apr	67	34	80	1992, 2002, 2006	18	1974	0.12	1975	5	0.23	
14 Apr	66	36	78	2002	20	1974	0.04	1988	2	0.06	
15 Apr	65	36	80	1990, 2008	21	1983	0.32	2016	9	0.83	
16 Apr	66	36	81	1994	20	1999	0.22	1988	7	0.61	
17 Apr	68	37	80	1987, 1994, 2001	23	1983	0.30	2015	6	0.53	
18 Apr	68	38	81	2001	23	1978, 1986, 1998, 2013	0.50	1970	9	1.52	
19 Apr	69	36	85	1989	21	1986, 2013	0.30	1995	5	0.50	
20 Apr	69	35	85	1989	24	1973, 1982	0.39	1995	6	0.73	
21 Apr	70	36	85	1989	25	1987	0.63	1985	9	2.60	
22 Apr	68	38	85	2006	27	1970, 2002	0.17	1988	6	0.57	
23 Apr	68	38	84	2006, 2012	25	1970, 2008	0.56	1997	10	2.18	
24 Apr	71	39	85	1996, 2012	24	2008	0.38	1997	6	1.33	
25 Apr	70	39	80	1981	21	2008	0.16	2011	8	0.35	
26 Apr	69	38	81	2000	18	1984	0.37	1998	9	0.86	
27 Apr	64	37	85	2000	18	2008	0.29	1984	7	0.61	
28 Apr	65	39	84	1992, 2000	27	1970, 1991	0.78	1985	7	1.04	
29 Apr	65	39	86	1992	20	1996	0.07	1990	5	0.20	
30 Apr	66	38	85	1992	24	1970, 1975	0.19	1990	9	1.24	

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.



**Table 5. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each May Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)					Precipitation (inches)				
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*	Total for all Years
1 May	69	40	85	2001	24	2008	0.51	1990	13	1.94
2 May	69	39	82	1986, 2000	15	2008	0.37	2009	8	1.17
3 May	72	40	85	2000	20	2008	0.40	1999	5	0.95
4 May	74	42	86	2000	25	2008	0.38	1982	3	0.59
5 May	72	42	87	2000	30	1991	0.44	1978	10	1.67
6 May	71	42	84	1989, 1996, 2000	25	1975	0.56	1969	14	1.99
7 May	71	41	89	1989	23	1975	0.32	1976	8	0.96
8 May	72	41	86	1989	27	1984	0.09	1971	7	0.22
9 May	73	42	86	1974, 1989	31	1971	1.19	1992	4	1.32
10 May	74	43	87	2004	29	2003	0.12	1979	4	0.18
11 May	75	43	86	1996	29	1979	0.57	1994	5	0.75
12 May	73	43	90	1996	27	2010	0.20	1982	5	0.68
13 May	76	43	90	1984	28	2008	0.08	2012	4	0.15
14 May	77	45	89	1984	29	1985	0.22	1977	3	0.36
15 May	77	47	88	1996	31	1983, 1998	0.24	2008	5	0.57
16 May	77	47	87	1988, 1996	36	1982	0.25	2015	4	0.56
17 May	76	46	89	2003, 2006	27	1983	0.25	1981	3	0.41
18 May	77	46	90	1996	31	1983	0.86	1988	5	1.40
19 May	78	47	90	2006	32	1983	0.70	2001	8	1.40
20 May	77	47	94	2005	28	1974	0.30	2007	8	0.98
21 May	78	47	90	2005	32	1974	0.38	1997	9	1.00
22 May	78	47	92	2005	35	1975, 2002	0.09	1975	11	0.45
23 May	78	46	93	2005	34	1975	0.50	1999	7	1.62
24 May	77	47	93	2005	33	1971	0.19	1994	6	0.39
25 May	78	46	92	2006	27	1980	0.53	1994	7	1.07
26 May	79	47	90	2001	30	1980	0.24	1973	5	0.39
27 May	81	47	93	2003	35	1987	0.29	1981	1	0.29
28 May	82	49	94	2000, 2003	34	1973	0.20	1995	5	0.42
29 May	80	49	97	2000	38	2006	0.25	1981	6	0.72
30 May	80	48	95	2002, 2003	34	1971	0.00	n/a	0	0.00
31 May	82	48	98	2002	34	1988	0.24	1991	4	0.48

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.

**Table 6. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each June Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)					Precipitation (inches)					
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*	Total for all Years	
1 June	83	49	96	2003	38	1971, 1980, 1988	0.10	1991	3	0.17	
2 June	83	20	92	2004, 2006	35	1990	0.10	1973	5	0.23	
3 June	84	50	94	2004	41	1989	0.19	1986	3	0.44	
4 June	84	51	95	2006	37	2005	0.43	1973	5	0.70	
5 June	83	51	95	2006	32	1999	0.50	2015	3	0.62	
6 June	84	52	99	2006	38	1982	0.33	1970	3	0.78	
7 June	84	51	96	2006	38	2007	0.36	1997	6	0.46	
8 June	83	52	95	2002, 2016	38	1974, 2007	0.22	2006	7	0.58	
9 June	84	51	95	1985, 2016	36	1979	0.14	2015	7	0.47	
10 June	84	51	96	1985, 2013	39	1979, 1995	0.10	1975	4	0.24	
11 June	84	52	93	1981, 1994, 2006	38	1975	0.44	1970	4	1.11	
12 June	85	51	95	2006	40	2008	0.10	2007, 2010	3	0.26	
13 June	85	52	96	2006	41	2008	0.06	2009	3	0.12	
14 June	86	52	96	1974, 2006	36	1983, 2001	0.30	1996	5	0.97	
15 June	87	52	97	1974	37	1981	0.39	1984	3	0.50	
16 June	88	54	95	1985, 2007	36	1981	0.05	1999	4	0.11	
17 June	87	55	95	1974, 2001	44	1992	0.14	1969	5	0.32	
18 June	89	54	98	1989	38	1995	0.02	1994	1	0.02	
19 June	89	54	99	2006	40	1998	0.02	1999	2	0.03	
20 June	90	55	101	1974, 2002, 2005, 2016	41	1973	0.09	1999	3	0.18	
21 June	89	55	99	2005, 2016	44	2000	0.13	1996	2	0.18	
22 June	90	56	99	1988	42	1989	0.07	1976	2	0.12	
23 June	90	57	98	1981, 1990	46	1995	0.17	1983	3	0.29	
24 June	90	56	98	1981	42	1976	0.21	1986	5	0.48	
25 June	90	58	100	1981, 1990, 1994	43	1976	0.35	1969	6	0.76	
26 June	90	58	100	1990	40	1975	0.34	1969	6	0.79	
27 June	90	58	99	1990, 2013	39	1985	0.15	1996	6	0.31	
28 June	91	59	99	1980, 1990, 2013	45	1985	0.08	2004	2	0.15	
29 June	91	59	99	1998	51	2003	0.07	1980	4	0.13	
30 June	92	59	103	1990	51	1970	0.44	1981	6	0.81	

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.

**Table 7. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each July Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)					Precipitation (inches)				
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*	Total for all Years
1 July	91	59	99	1998, 1999, 2002	51	2011	0.31	2008	6	1.22
2 July	92	59	100	2002	47	1982, 1992	0.19	1979	3	0.40
3 July	92	59	98	1989, 2007	49	1992	0.10	1995	5	0.41
4 July	91	59	100	1989	45	1969, 1995	0.10	1986	5	0.28
5 July	91	59	102	1989	43	1969	0.25	2006	5	0.36
6 July	92	60	103	1989	44	1969	0.39	2006	3	0.63
7 July	90	61	100	1989	53	1980, 1982	0.40	2012	13	1.15
8 July	91	60	100	1989, 1995	46	1993	0.56	1999	13	2.98
9 July	90	60	99	1976, 2003	50	1999	0.52	1999	13	1.55
10 July	91	60	100	1976, 2003	53	1979, 1982, 2003	0.44	2001	7	0.84
11 July	91	60	100	2003	52	1979	0.42	2007	12	1.20
12 July	91	60	101	2005	55	1979, 2011	0.39	1992	9	1.11
13 July	92	60	101	2003	52	1979	0.20	1981, 1984	9	0.70
14 July	92	60	102	2003	51	1992	0.80	1974	10	1.83
15 July	92	61	103	2003	53	1992, 1995	0.27	2013	9	0.85
16 July	91	62	99	1971, 2005	54	1990, 1992, 1999, 2015	0.35	1979	15	1.98
17 July	91	61	100	2005, 2006	55	1992, 1993	0.59	2000	13	1.70
18 July	91	61	99	1989, 2005	50	1993	0.26	1977	11	1.16
19 July	91	61	100	1998, 2005	51	1987	0.78	1986	10	1.66
20 July	91	61	102	2005	54	1973, 1995	0.69	1986	8	1.53
21 July	91	62	103	2005	55	1996	0.80	1986	13	1.57
22 July	91	61	101	2003	53	1991, 1993	0.39	1986	10	1.63
23 July	90	61	99	2005	50	1995	0.22	1989	8	0.69
24 July	90	62	99	2005	54	1979, 1986, 2000	0.53	1998	15	2.49
25 July	90	60	97	2003	44	1981	0.19	1983, 1999	12	1.03
26 July	90	60	97	2003	45	1981	0.27	2011	14	1.45
27 July	90	60	97	1995, 2016	54	1993	0.43	1989	16	1.26
28 July	90	60	100	1995	49	1981	0.36	1982	13	1.28
29 July	91	61	101	1995	52	2004	0.42	1983	9	0.84
30 July	91	61	100	1972	55	1975, 1996	0.56	1988	14	2.17
31 July	91	61	99	2002	52	2000	1.16	1989	9	1.41

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.

**Table 8. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each August Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)					Precipitation (inches)				
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*	Total for all Years
1 Aug	90	61	98	1972	55	1977	0.80	2010	11	1.95
2 Aug	89	61	99	1970	51	1975	0.36	1982	11	1.54
3 Aug	89	61	98	1977	49	1975	0.66	1999	11	1.54
4 Aug	89	61	97	1994	53	1975	0.68	2006	10	1.74
5 Aug	89	60	99	1983	52	1976, 1996	0.70	2005	14	2.28
6 Aug	89	60	98	2003	53	1990, 1996	0.35	2013	14	1.72
7 Aug	89	61	97	1995	54	1991, 1996	0.24	2015	12	1.27
8 Aug	89	60	96	2000	52	2009	0.09	1994	5	0.24
9 Aug	90	60	97	1969, 1998, 2000	48	2009	0.30	1984	4	0.34
10 Aug	89	60	98	2003	52	1974, 1996	0.32	1985	13	1.27
11 Aug	89	60	98	2003	54	1999, 2013	0.21	1988	11	0.80
12 Aug	89	60	97	1973	49	1999	1.13	1977	10	1.55
13 Aug	89	60	96	1970, 1996, 2003, 2007	49	1981	0.57	1990	11	1.64
14 Aug	88	60	96	1973, 1996	49	1981	0.59	1999	10	1.72
15 Aug	88	58	96	1973	48	1978	0.62	1983	9	1.66
16 Aug	88	59	94	1986, 1994, 2007	49	1981	0.51	1984	11	1.75
17 Aug	88	58	96	1986, 1994	51	2009	0.20	1989	9	0.50
18 Aug	88	58	98	2002	51	1979	0.41	1983	10	0.81
19 Aug	87	58	97	2002	48	1979	0.63	1987	11	2.31
20 Aug	86	58	94	1986	48	1980	1.10	1998	17	4.11
21 Aug	87	58	94	1986, 2003	41	1980	0.51	1985	12	1.92
22 Aug	87	59	95	2007	53	2000	0.38	2010	14	1.22
23 Aug	86	59	93	1973, 1988	52	1979, 1981, 2001	0.86	1987	15	4.37
24 Aug	85	58	95	2011	48	1989	0.79	1988	11	1.93
25 Aug	86	58	96	2002	48	1989, 1992	1.10	1982	13	2.61
26 Aug	86	58	94	1969, 2001, 2002	48	1992	0.60	2015	12	1.73
27 Aug	86	57	95	1970	46	1978, 1992	0.83	1993	10	1.83
28 Aug	86	57	95	1969	46	1978	0.16	1993	4	0.32
29 Aug	86	58	97	1969	49	1987, 2014	0.66	1986	5	0.95
30 Aug	87	58	95	1985	49	1975	0.63	2000	10	1.25
31 Aug	86	57	94	1995	49	1973	0.74	1997	10	1.39

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.

**Table 9. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each September Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)					Precipitation (inches)					Total for all Years
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*		
1 Sep	86	58	97	1995	47	1980, 1981	0.28	2011	7	0.54	
2 Sep	86	57	94	1995	44	1973	0.48	1994	5	0.76	
3 Sep	86	57	94	1995	40	1973	0.40	2004	4	0.65	
4 Sep	85	57	95	1995	43	1973	0.44	1981	8	1.17	
5 Sep	84	56	91	1976, 1977, 1995, 2011	41	2004	0.44	1991	8	1.09	
6 Sep	84	56	93	1977	44	2004	1.93	1970	6	2.59	
7 Sep	84	55	94	1979	45	1970, 1999	1.10	1995	11	2.28	
8 Sep	82	55	92	1979	40	2001	1.57	2002	12	3.91	
9 Sep	82	55	94	1979	36	2001	0.61	2003	13	2.94	
10 Sep	81	55	91	1974, 1990	46	2010	1.42	2002	14	4.10	
11 Sep	81	54	91	1990	42	1986	0.58	1982	15	1.90	
12 Sep	80	52	95	1969	37	1985	1.20	2015	17	4.10	
13 Sep	80	52	93	1969, 1990	40	1985, 1989	0.64	1982	10	1.76	
14 Sep	80	51	93	1990, 2000	36	1989	0.44	2006	10	1.24	
15 Sep	79	51	92	2000	40	1987, 1988	0.66	1997	9	1.37	
16 Sep	80	51	92	2000	39	1991	0.21	1990, 2007	6	0.73	
17 Sep	80	51	92	2000	38	2006	0.26	1978, 2013	10	0.84	
18 Sep	78	50	88	1998, 2010	28	1971	0.57	1985	10	1.99	
19 Sep	78	49	89	2010	29	1996	0.85	2004	8	1.40	
20 Sep	78	49	90	1998, 2005	33	1978	1.20	1969	13	3.23	
21 Sep	77	48	86	2000, 2001	30	1983	0.22	1997	7	0.39	
22 Sep	77	48	88	1993	31	2009	0.52	2010	12	1.74	
23 Sep	75	48	87	2001	31	2006	0.72	1986	8	1.14	
24 Sep	76	47	87	1998	33	2000	1.19	1978	5	1.35	
25 Sep	77	47	88	2001	33	2000	0.58	1976	7	1.87	
26 Sep	78	48	88	2005	34	1970	0.40	1976	5	0.58	
27 Sep	78	48	89	2001	34	1996	0.74	2014	7	1.69	
28 Sep	77	47	89	2001	31	1996	0.69	1990	9	2.41	
29 Sep	76	47	88	2001	28	1999	0.39	1971	6	1.41	
30 Sep	77	46	88	2010	31	1985	0.32	1997	4	0.75	

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.

**Table 10. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each October Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)					Precipitation (inches)				
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*	Total for all Years
1 Oct	76	47	88	1987, 2015	31	1985	0.21	1983	8	0.81
2 Oct	75	46	84	2010	28	2009	0.83	1981	9	2.50
3 Oct	74	45	83	1988, 2005, 2012	32	1971	0.64	1969	9	1.65
4 Oct	71	44	83	2006	32	2002	0.59	2011	14	2.52
5 Oct	72	43	85	1999	30	1969	0.40	2015	12	1.53
6 Oct	71	43	84	1975	27	1998	0.53	1993	11	2.01
7 Oct	70	43	83	1979	28	2007	0.64	1972	8	1.03
8 Oct	69	42	82	1980	28	1992	0.51	2006	7	1.16
9 Oct	70	42	81	2003	28	1970	0.32	2000	9	1.26
10 Oct	71	43	82	1991, 1999	28	1982	0.42	2013	6	1.28
11 Oct	71	42	84	1999	28	2001	0.46	1986	7	1.16
12 Oct	69	42	82	1991	28	1982, 2008	0.19	1974	6	0.73
13 Oct	69	41	80	1979, 1989, 1998, 1999	23	1997	0.18	1972	7	0.57
14 Oct	69	40	80	1998, 1999, 2015	27	1975, 2008	0.35	2006	4	0.77
15 Oct	69	39	79	1979, 2011, 2015	28	1975	0.23	1980, 1994	5	0.57
16 Oct	68	40	80	1991	23	1984	0.39	1994	10	1.42
17 Oct	67	40	79	1973	21	1999	0.26	1993	10	1.22
18 Oct	67	39	78	1973, 2003	20	1999	0.36	1972	6	0.80
19 Oct	67	39	80	2003	24	1976	0.89	1990	5	1.52
20 Oct	67	39	78	1973, 1975, 1992	28	1995, 1999	0.88	1978	8	1.55
21 Oct	64	39	80	2003	26	1990, 1996	1.16	1979	9	2.00
22 Oct	63	38	80	2003	16	1996	1.47	1969	12	2.88
23 Oct	64	37	80	1973	22	2008	0.37	2000	9	1.66
24 Oct	64	36	75	1989, 2011	17	1980	0.40	2000	10	1.05
25 Oct	64	37	77	1988, 2005, 2014	22	1980	0.78	1998	12	1.90
26 Oct	61	35	79	1977	19	1997	0.74	2011	10	2.49
27 Oct	62	36	75	1985, 1990, 2001, 2007	21	1997	0.65	1974	9	2.25
28 Oct	61	36	79	2001, 2016	21	1970	0.63	2002	12	1.97
29 Oct	60	35	77	2001	21	1970, 1982	0.61	1987	11	1.86
30 Oct	60	34	78	2001	15	1989	0.18	1998	6	0.73
31 Oct	59	34	72	1988, 2001, 2008, 2014	19	1999	0.27	1986	9	0.91

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.

**Table 11. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each November Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)					Precipitation (inches)				
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*	Total for all Years
1 Nov	59	33	74	2008, 2014	15	1972	0.65	1986	7	1.08
2 Nov	59	32	74	2008	14	1989	0.39	1990	6	0.91
3 Nov	58	32	75	2001	11	1991	0.79	1978	8	1.77
4 Nov	59	32	74	1977, 2001	14	1992	0.49	2016	8	0.99
5 Nov	59	33	71	1975, 1977, 1999, 2009	20	1992	0.52	1987	4	0.84
6 Nov	59	32	75	1999	15	1993, 2013	0.48	1986	5	1.23
7 Nov	59	32	74	1999	13	2008	0.59	1977	7	1.64
8 Nov	58	34	71	1980, 1999	17	2000	0.61	1998	10	1.99
9 Nov	57	33	73	1980	18	1986	0.23	2012	8	0.66
10 Nov	57	32	74	2005	16	1986	0.70	2002	12	1.44
11 Nov	55	32	71	1973, 1999	19	1986, 1995	0.54	1994	11	1.96
12 Nov	55	31	72	1973	12	1975	0.71	2003	7	1.68
13 Nov	55	30	69	1999	15	2000	0.25	1970	9	0.72
14 Nov	54	29	70	1999	17	1982, 2010	0.35	1991	7	1.07
15 Nov	53	29	69	1999	16	1980, 1985	0.40	1991	7	0.94
16 Nov	52	28	68	1975, 1981, 1999	16	2005	0.53	1991	4	1.17
17 Nov	53	27	73	1975	12	2000, 2014	0.48	1983	6	1.26
18 Nov	52	27	69	2008	10	2000	0.37	1986	7	0.80
19 Nov	51	26	71	2007	8	1985	0.08	2004	6	0.26
20 Nov	51	26	64	2007	13	1980, 1985	0.20	2016	9	0.92
21 Nov	51	27	64	2006	16	1993	0.47	2013	7	0.99
22 Nov	50	27	65	2006	11	1975	0.25	2001	8	0.76
23 Nov	49	26	63	1981, 1998	9	1999	0.44	2000	3	0.64
24 Nov	48	24	66	1981	8	1979	0.21	1978	9	0.71
25 Nov	49	25	64	1970	6	2010	0.54	1978	7	1.65
26 Nov	47	25	64	1995	7	1975, 1992, 2010	0.20	1996	9	0.47
27 Nov	45	24	67	1998	8	1993	0.43	2008	6	0.69
28 Nov	44	22	63	1999	4	1976	0.41	1991	9	1.16
29 Nov	44	22	65	1998	1	1976	0.35	1996	9	0.83
30 Nov	45	22	62	1999	4	2006	0.38	2007	2	0.55

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.

**Table 12. Average High and Low Temperature, High and Low Temperature Extremes and Year(s) of Occurrence, Highest Recorded Precipitation and Year(s) of Occurrence, and Number of Years Precipitation Occurred on each December Date at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Date	Air Temperature (°F)					Precipitation (inches)				
	Avg. High	Avg. Low	Highest Record	Year(s) of Highest	Lowest Record	Year(s) of Lowest	Highest Recorded	Year(s) of Highest	No. Years > 0*	Total for all Years
1 Dec	46	22	67	1999	8	1996	0.19	2002	5	0.41
2 Dec	46	24	61	1995	5	1991	0.18	1997	4	0.25
3 Dec	46	23	59	2001, 2010	3	1991	0.07	2014	4	0.18
4 Dec	46	23	63	1980	1	2009	0.46	2014	8	1.06
5 Dec	45	22	61	1995	6	2005	0.48	1986	9	1.91
6 Dec	45	21	58	1995	2	1972	0.21	1986	6	0.41
7 Dec	45	22	63	1977	-1	1978	0.25	1997	11	0.84
8 Dec	44	22	61	1970	-8	1978	0.25	2008	7	0.70
9 Dec	42	20	58	1977	-9	1978	0.14	1982	6	0.48
10 Dec	43	20	59	1977	-2	1978	0.14	1982	6	0.48
11 Dec	44	20	63	1977	-2	1978	0.38	1991	5	0.97
12 Dec	43	21	57	1995, 2014	1	1978	0.40	1984	9	1.10
13 Dec	44	22	57	2004	8	1978	0.12	2014	9	0.46
14 Dec	41	21	59	2010	6	1972	0.17	1984	9	0.65
15 Dec	41	18	56	1977	1	1987	0.22	2016	10	0.94
16 Dec	41	19	56	1998, 2016	1	1987	0.18	2002	7	0.59
17 Dec	42	19	55	1970, 1980	4	1992	0.12	1995	8	0.44
18 Dec	43	20	58	1980	3	1996	0.33	1978	9	1.50
19 Dec	42	21	55	1969, 1998, 2003, 2013	8	1996	0.09	2011	5	0.19
20 Dec	42	21	56	1981	1	1992	0.11	1983	6	0.29
21 Dec	41	20	56	1969	-2	1992	0.13	2003	9	0.63
22 Dec	40	20	55	1994	2	1990, 1992	0.45	2016	15	1.80
23 Dec	40	20	53	1969, 2005	-12	1990	0.17	1994	9	0.58
24 Dec	39	18	57	1971	-16	1990	0.14	2016	6	0.41
25 Dec	39	18	57	1971	-15	1990	0.18	1983	5	0.52
26 Dec	39	17	59	2005	-8	1990	0.47	1979	7	1.05
27 Dec	39	18	55	1980	-6	1990	0.18	1979	5	0.41
28 Dec	41	19	56	2004	5	1990	0.26	2006	9	0.74
29 Dec	40	19	60	2004	1	1988	0.31	2001	11	1.30
30 Dec	40	19	55	2011	-5	1990	0.28	1973	9	0.81
31 Dec	39	18	55	1996	-8	1990	0.07	1973	5	0.22

\*Number of years between 1969 and 2016 in which measurable precipitation (equal to or greater than 0.01 inch) fell on the date.



**Table 13a. Average (Avg.) and Maximum (Max.) Recorded Wind Run in Miles per 24-hour Day (MPD) and Average (Avg.) Miles per Hour (MPH) for each Day from January 1 to June 30 at the NMSU Agricultural Science Center at Farmington, NM, 1980–2016**

Day	January			February*			March			April			May			June		
	MPD		MPH	MPD		MPH	MPD		MPH	MPD		MPH	MPD		MPH	MPD		MPH
	Avg.	Max.	Avg.	Avg.	Max.	Avg.	Avg.	Max.	Avg.	Avg.	Max.	Avg.	Avg.	Max.	Avg.	Avg.	Max.	Avg.
1	100	237	4.2	111	242	4.6	124	246	5.2	151	268	6.3	159	594	6.6	127	309	5.3
2	96	231	4.0	117	242	4.9	145	282	6.0	167	324	7.0	154	571	6.4	115	217	4.8
3	111	319	4.6	115	255	4.8	118	235	4.9	155	321	6.5	122	256	5.1	119	182	5.0
4	106	274	4.4	103	242	4.3	144	375	6.0	145	282	6.0	132	270	5.5	120	189	5.0
5	95	247	3.9	111	267	4.6	147	462	6.1	151	318	6.3	134	303	5.6	122	238	5.1
6	102	230	4.3	104	210	4.3	137	282	5.7	153	292	6.4	132	371	5.5	122	269	5.1
7	90	179	3.8	111	206	4.6	141	301	5.9	152	306	6.3	135	206	5.6	117	212	4.9
8	94	182	3.9	112	224	4.7	135	311	5.6	150	336	6.3	136	330	5.7	120	229	5.0
9	101	216	4.2	103	183	4.3	128	260	5.3	139	239	5.8	130	226	5.4	112	241	4.7
10	109	203	4.6	134	373	5.6	118	207	4.9	154	355	6.4	143	316	6.0	110	207	4.6
11	104	216	4.3	114	271	4.8	144	356	6.0	154	285	6.4	147	266	6.1	108	274	4.5
12	115	266	4.8	120	237	5.0	122	239	5.1	151	315	6.3	134	403	5.6	112	190	4.7
13	117	284	4.9	121	239	5.0	128	242	5.3	137	358	5.7	125	229	5.2	124	259	5.2
14	106	222	4.4	145	352	6.0	133	280	5.5	144	279	6.0	129	239	5.4	119	201	5.0
15	103	289	4.3	122	338	5.1	137	238	5.7	147	304	6.1	127	188	5.3	117	264	4.9
16	106	252	4.4	133	282	5.6	132	265	5.5	150	353	6.2	125	222	5.2	118	208	4.9
17	111	473	4.6	122	214	5.1	171	406	7.1	149	282	6.2	118	200	4.9	105	198	4.4
18	96	215	4.0	132	222	5.5	156	343	6.5	165	304	6.9	117	200	4.9	109	228	4.6
19	104	212	4.3	140	500	5.8	132	268	5.5	150	260	6.2	132	350	5.5	116	196	4.8
20	103	253	4.3	133	368	5.5	126	289	5.2	145	243	6.0	125	251	5.2	110	190	4.6
21	115	400	4.8	116	212	4.8	142	258	5.9	134	222	5.6	128	268	5.3	111	241	4.6
22	103	261	4.3	134	289	5.6	134	236	5.6	136	219	5.7	127	198	5.3	109	169	4.5
23	103	215	4.3	130	284	5.4	144	328	6.0	139	369	5.8	119	216	4.9	107	182	4.4
24	110	220	4.6	135	268	5.6	134	295	5.6	153	378	6.4	123	221	5.1	114	194	4.8
25	121	244	5.0	126	241	5.3	140	302	5.9	161	327	6.7	114	206	4.7	105	192	4.4
26	108	205	4.5	119	238	4.9	165	417	6.9	146	294	6.1	126	259	5.3	110	228	4.6
27	119	233	4.9	121	307	5.0	155	458	6.5	120	257	5.0	119	224	5.0	107	184	4.5
28	110	229	4.6	125	264	5.2	146	306	6.1	144	403	6.0	119	195	4.9	118	206	4.9
29	126	309	5.2	128	218	5.3	147	335	6.1	148	281	6.2	122	256	5.1	105	168	4.4
30	116	238	4.8				159	295	6.6	154	401	6.4	121	214	5.0	109	203	4.5
31	113	197	4.7				149	390	6.2				114	214	4.7			
<b>Mean</b>	<b>107</b>	<b>167</b>	<b>4.5</b>	<b>122</b>	<b>255</b>	<b>5.3</b>	<b>140</b>	<b>307</b>	<b>5.8</b>	<b>148</b>	<b>306</b>	<b>6.2</b>	<b>129</b>	<b>273</b>	<b>5.4</b>	<b>114</b>	<b>216</b>	<b>4.7</b>

\*Wind data shown for February 29 reflect summaries of 10 (leap) years only.

**Table 13b. Average (Avg.) and Maximum (Max.) Recorded Wind Run in Miles per 24-hour Day (MPD) and Average (Avg.) Miles per Hour (MPH) for each Day from July 1 to December 30 at the NMSU Agricultural Science Center at Farmington, NM, 1980–2016**

Day	July			August			September			October			November			December		
	MPD		MPH	MPD		MPH	MPD		MPH	MPD		MPH	MPD		MPH	MPD		MPH
	Avg.	Max.	Avg.	Avg.	Max.	Avg.	Avg.	Max.	Avg.	Avg.	Max.	Avg.	Avg.	Max.	Avg.	Avg.	Max.	Avg.
1	106	182	4.4	104	185	4.3	99	196	4.1	100	157	4.2	99	193	4.1	109	216	4.6
2	111	228	4.6	100	168	4.2	94	171	3.9	107	165	4.5	96	233	4.0	108	279	4.5
3	109	208	4.5	98	177	4.1	93	184	3.9	103	211	4.3	83	148	3.5	97	196	4.0
4	104	177	4.3	102	199	4.2	99	215	4.1	106	298	4.4	104	291	4.3	89	194	3.7
5	111	182	4.6	100	205	4.2	88	151	3.7	102	198	4.2	113	214	4.7	100	202	4.2
6	109	188	4.5	102	172	4.2	94	194	3.9	106	208	4.4	93	191	3.9	94	172	3.9
7	99	196	4.1	96	188	4.0	110	195	4.6	109	246	4.5	104	196	4.3	116	255	4.8
8	111	209	4.6	93	160	3.9	103	204	4.3	101	215	4.2	100	232	4.2	96	222	4.0
9	103	189	4.3	102	185	4.3	100	192	4.2	103	175	4.3	116	300	4.8	105	252	4.4
10	96	151	4.0	110	188	4.6	100	176	4.2	101	181	4.2	115	252	4.8	88	181	3.7
11	101	159	4.2	101	172	4.2	102	366	4.2	105	230	4.4	101	220	4.2	93	189	3.9
12	94	158	3.9	95	208	4.0	98	214	4.1	107	250	4.5	98	260	4.1	116	230	4.8
13	102	210	4.3	108	206	4.5	96	176	4.0	108	261	4.5	98	179	4.1	108	244	4.5
14	103	196	4.3	97	159	4.0	97	190	4.0	101	220	4.2	115	304	4.8	118	306	4.9
15	110	194	4.6	107	178	4.5	106	201	4.4	98	195	4.1	113	337	4.7	113	273	4.7
16	104	146	4.3	94	173	3.9	97	191	4.0	96	195	4.1	113	337	4.7	113	273	4.7
17	102	166	4.3	102	214	4.3	94	181	3.9	108	249	4.5	108	271	4.5	107	297	4.5
18	109	169	4.5	97	183	4.0	103	196	4.3	103	188	4.3	98	259	4.1	99	241	4.1
19	101	175	4.2	98	192	4.1	95	189	4.0	112	212	4.7	100	335	4.2	105	283	4.4
20	104	201	4.3	97	186	4.1	97	185	4.1	109	259	4.5	107	204	4.5	96	308	4.0
21	103	232	4.3	92	163	3.8	105	188	4.4	103	226	4.3	101	229	4.2	110	322	4.6
22	98	184	4.1	95	180	4.0	100	204	4.1	99	240	4.1	113	218	4.7	107	260	4.5
23	98	150	4.1	95	196	3.9	96	208	4.0	95	202	3.9	109	238	4.5	114	339	4.7
24	99	162	4.1	104	244	4.3	92	164	3.8	91	188	3.8	105	206	4.4	111	274	4.6
25	103	175	4.3	91	157	3.8	93	157	3.9	97	203	4.1	104	297	4.4	98	259	4.1
26	108	173	4.5	87	146	3.6	100	238	4.2	107	224	4.5	119	292	5.0	91	231	3.8
27	97	147	4.1	96	162	4.0	103	203	4.3	101	174	4.2	109	370	4.6	103	287	4.3
28	101	165	4.2	100	222	4.2	102	324	4.2	99	179	4.1	116	225	4.8	103	283	4.3
29	109	232	4.5	95	153	4.0	106	203	4.4	114	246	4.8	118	258	4.9	87	216	3.6
30	102	161	4.3	98	173	4.1	104	219	4.3	99	177	4.1	115	262	4.8	84	179	3.5
31	97	186	4.1	98	206	4.1				103	291	4.3				108	260	4.5
<b>Mean</b>	<b>103</b>	<b>182</b>	<b>4.3</b>	<b>99</b>	<b>184</b>	<b>4.3</b>	<b>99</b>	<b>203</b>	<b>4.1</b>	<b>103</b>	<b>215</b>	<b>4.3</b>	<b>106</b>	<b>247</b>	<b>4.4</b>	<b>102</b>	<b>249</b>	<b>4.3</b>

**Table 14a. Average Maximum (Max.), Average Minimum (Min.), and Average (Avg.) Relative Humidity ( $[\text{Max.} + \text{Min.}] / 2$ ) for each Day from January 1 to June 30 at the NMSU Agricultural Science Center at Farmington, NM, 1980–2016**

Day	January			February*			March			April			May			June		
	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.
1	85	41	63	89	42	65	80	31	55	67	17	42	72	19	46	49	11	30
2	85	41	63	87	39	63	79	26	53	71	21	46	72	22	47	51	12	32
3	87	45	66	86	35	60	77	23	50	76	20	48	67	19	43	51	13	32
4	86	44	65	88	36	62	75	23	49	73	19	46	66	16	41	56	11	34
5	90	47	68	85	34	59	71	21	46	66	20	43	61	14	38	55	13	34
6	88	44	66	85	33	59	70	22	46	68	20	44	59	15	37	53	11	32
7	85	44	64	84	31	57	76	26	51	65	21	43	63	16	40	48	13	31
8	87	43	65	84	36	60	80	25	53	66	19	42	61	16	38	51	13	32
9	87	41	64	87	36	62	78	21	49	64	22	43	61	17	39	59	12	36
10	85	43	64	85	37	61	76	24	50	67	19	43	63	14	39	58	13	36
11	88	38	63	81	36	59	76	22	49	63	20	42	58	14	36	53	11	32
12	85	40	62	81	34	57	74	24	49	64	18	41	61	17	39	51	12	31
13	85	40	63	84	31	58	73	22	47	68	18	43	63	15	39	55	12	34
14	84	39	62	85	31	58	72	19	45	60	15	38	61	15	38	53	13	33
15	83	37	60	83	31	57	73	18	46	58	16	37	63	15	39	52	11	32
16	87	42	65	82	31	56	73	18	45	62	15	39	67	15	41	49	11	30
17	85	41	63	76	26	51	71	21	46	64	17	40	63	17	40	50	11	30
18	85	39	62	79	28	54	73	21	47	65	17	41	64	15	39	50	11	30
19	88	36	62	83	26	55	69	23	46	63	17	40	61	16	39	49	11	30
20	87	39	63	81	30	56	68	18	43	59	18	38	63	15	39	52	12	32
21	85	40	62	80	28	54	69	20	45	68	18	43	62	15	39	49	12	31
22	84	41	62	79	28	53	67	20	44	66	20	43	59	15	37	49	11	30
23	84	40	62	80	25	52	61	19	40	70	18	44	61	17	39	50	11	31
24	83	37	60	77	26	51	66	20	43	70	22	46	59	16	37	50	13	31
25	85	39	62	75	29	52	64	19	41	67	19	43	60	15	37	50	14	32
26	87	41	64	73	24	49	72	22	47	75	16	46	57	14	36	58	15	37
27	86	38	62	77	25	51	74	20	47	67	18	42	55	13	34	56	15	35
28	83	39	61	82	33	57	66	21	43	66	16	41	58	13	35	57	13	35
29	81	36	58	88	23	55	73	20	47	69	17	43	59	14	36	57	14	36
30	82	39	60				72	19	45	71	19	45	55	14	34	59	14	36
31	87	39	63				69	18	44				59	12	35			
<b>Mean</b>	<b>85</b>	<b>40</b>	<b>61</b>	<b>82</b>	<b>31</b>	<b>57</b>	<b>72</b>	<b>21</b>	<b>47</b>	<b>67</b>	<b>18</b>	<b>43</b>	<b>62</b>	<b>16</b>	<b>39</b>	<b>53</b>	<b>12</b>	<b>33</b>

\*Humidity data shown for February 29 reflect summaries of 10 (leap) years only.

**Table 14b. Average Maximum (Max.), Average Minimum (Min.), and Average (Avg.) Relative Humidity ( $[\text{Max.} + \text{Min.}] / 2$ ) for each Day from July 1 to December 31 at the NMSU Agricultural Science Center at Farmington, NM, 1980–2016**

Day	July			August			September			October			November			December		
	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.
1	58	14	36	75	21	48	74	23	59	68	22	45	75	27	51	80	35	57
2	61	14	37	76	24	50	72	22	47	70	27	48	73	26	49	82	35	59
3	61	15	38	74	23	49	73	24	48	73	26	50	73	26	49	82	33	57
4	57	14	36	72	22	47	73	24	49	75	25	50	72	28	50	81	31	56
5	57	17	37	74	22	48	75	23	49	71	25	48	72	26	49	85	39	62
6	58	16	37	75	21	48	75	24	50	75	24	50	73	24	48	83	36	60
7	64	21	42	75	20	47	74	23	49	77	26	51	70	25	47	85	36	61
8	69	19	44	72	20	46	76	25	50	76	25	51	74	29	52	87	39	63
9	70	22	46	67	19	43	77	26	52	71	24	47	74	30	52	84	40	62
10	70	20	45	70	21	45	79	28	54	72	24	48	78	31	54	84	37	61
11	69	18	43	71	20	46	82	27	54	71	21	46	81	35	58	83	38	60
12	67	18	42	73	21	47	82	25	54	73	21	47	82	34	58	85	43	64
13	68	19	44	76	22	49	81	28	54	72	20	46	84	37	60	85	39	62
14	73	18	45	78	23	51	82	25	54	75	21	48	83	33	58	86	39	63
15	66	17	42	75	22	48	73	23	48	74	24	49	81	32	56	87	43	65
16	70	18	44	73	21	47	74	22	48	73	21	47	77	33	55	87	45	66
17	72	19	45	70	21	45	71	23	47	73	24	48	79	31	55	87	44	65
18	72	18	45	71	19	45	79	26	52	73	23	48	78	29	53	85	44	64
19	73	18	46	71	22	47	72	23	47	74	24	49	76	27	52	86	42	64
20	72	18	45	79	24	51	75	23	49	75	24	49	76	28	52	85	41	63
21	68	18	43	80	23	51	73	22	47	74	27	51	78	30	54	90	45	68
22	71	19	45	79	22	51	73	21	47	74	29	52	82	32	57	87	43	65
23	71	19	45	77	25	51	73	23	48	76	27	52	80	33	56	89	45	67
24	69	19	44	77	23	50	73	20	47	71	24	27	80	32	56	86	41	64
25	73	19	46	76	23	50	68	20	44	80	26	53	79	30	54	88	44	66
26	74	20	47	73	27	50	69	22	46	77	31	54	78	30	54	88	41	65
27	72	20	46	73	25	49	69	18	44	76	29	53	77	32	55	87	45	66
28	73	19	46	78	24	51	68	22	45	74	31	53	84	33	58	86	43	64
29	72	19	46	71	21	46	68	23	45	77	28	53	82	36	59	88	43	64
30	76	22	49	69	20	45	66	22	44	74	27	50	82	36	59	89	46	68
31	75	23	49	72	23	48				75	27	51				89	52	70
<b>Mean</b>	<b>68</b>	<b>18</b>	<b>43</b>	<b>74</b>	<b>22</b>	<b>48</b>	<b>74</b>	<b>23</b>	<b>47</b>	<b>74</b>	<b>25</b>	<b>49</b>	<b>78</b>	<b>30</b>	<b>54</b>	<b>86</b>	<b>41</b>	<b>63</b>

**Table 15. Average Daily Global Solar Radiation in Langleys/Day (gram calories per square centimeter per day) as Measured with Pyranometers at the NMSU Agricultural Science Center at Farmington, NM, 1976–2016\***

Day	Jan	Feb**	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
1	207	262	338	445	541	652	646	565	487	422	301	231
2	197	262	370	459	563	669	637	551	526	400	300	206
3	199	279	369	488	560	647	652	559	499	389	281	227
4	211	266	357	494	582	637	644	549	500	369	274	218
5	187	295	387	496	566	655	645	549	495	395	289	202
6	196	302	372	516	579	656	635	578	497	382	294	203
7	209	295	368	511	592	665	604	553	498	386	277	208
8	224	277	388	528	593	628	596	574	483	387	257	217
9	220	288	409	510	578	635	599	587	458	382	245	220
10	212	301	392	506	592	666	626	547	454	381	274	213
11	215	300	398	523	627	657	630	573	465	384	242	214
12	222	306	387	523	614	655	624	565	461	374	256	195
13	241	320	419	534	578	668	597	543	454	381	245	206
14	235	287	400	548	596	673	637	528	450	376	253	203
15	220	310	421	544	572	665	633	530	477	367	256	203
16	224	304	431	544	569	668	614	539	460	355	252	196
17	220	308	405	546	597	670	626	543	461	324	256	204
18	239	310	440	563	570	673	628	538	446	349	267	198
19	229	301	418	552	583	661	615	535	461	357	256	198
20	242	299	425	577	579	664	619	512	459	350	253	212
21	238	312	452	543	578	659	603	525	440	314	224	182
22	240	330	441	532	617	693	600	520	426	328	230	183
23	240	334	449	517	586	677	594	520	443	342	238	199
24	236	328	464	506	584	657	587	497	446	325	238	206
25	230	347	462	528	600	641	587	501	459	307	222	197
26	241	338	435	550	617	634	569	519	453	324	214	198
27	260	331	455	597	653	656	584	516	442	305	237	199
28	247	329	414	548	644	628	559	519	434	314	226	212
29	259	389	448	552	639	609	584	528	418	311	224	195
30	237		468	619	635	634	578	525	447	322	228	199
31	239		469		652		571	489		300		189
<b>Total</b>	<b>7,017</b>	<b>8,910</b>	<b>12,850</b>	<b>15,897</b>	<b>18,434</b>	<b>19,651</b>	<b>18,925</b>	<b>16,676</b>	<b>13,899</b>	<b>11,003</b>	<b>7,611</b>	<b>6,333</b>
<b>Mean</b>	<b>226</b>	<b>307</b>	<b>415</b>	<b>530</b>	<b>595</b>	<b>655</b>	<b>610</b>	<b>538</b>	<b>463</b>	<b>355</b>	<b>254</b>	<b>204</b>

\*Solar radiation was measured in Langleys per day (Ly d<sup>-1</sup>) at the National Weather Service installation (WS-1) from 1972 through 2011. Solar radiation was then measured in megajoules per square meter per day (MJ m<sup>-2</sup> d<sup>-1</sup>) at the New Mexico Climate Center weather station (WS-2) from 2012 to 2016, and converted to Langleys per day (MJ m<sup>-2</sup> d<sup>-1</sup> × 23.89 = Ly d<sup>-1</sup>).

\*\*Solar radiation data shown for February 29 reflect averages of 11 (leap) years only.

**Table 16. Average Daily Pan Evaporation in Inches (PAN) from April 1 to October 31 for Number of Years Indicated (N) at the NMSU Agricultural Science Center at Farmington, NM, 1972–2016**

Day	April		May		June		July		August		September		October	
	PAN	N	PAN	N	PAN	N	PAN	N	PAN	N	PAN	N	PAN	N
1	0.25	26	0.31	41	0.40	44	0.48	40	0.39	43	0.33	44	0.24	44
2	0.26	28	0.29	41	0.44	44	0.44	40	0.38	44	0.34	45	0.25	43
3	0.26	33	0.31	41	0.40	44	0.46	40	0.38	45	0.33	45	0.25	43
4	0.23	36	0.33	42	0.42	44	0.45	40	0.41	45	0.30	45	0.22	43
5	0.26	36	0.33	42	0.42	44	0.46	40	0.38	45	0.33	45	0.20	44
6	0.27	36	0.34	42	0.41	43	0.46	40	0.38	44	0.31	45	0.22	44
7	0.26	36	0.34	42	0.42	44	0.42	40	0.34	44	0.31	45	0.22	44
8	0.29	36	0.33	43	0.43	44	0.42	40	0.39	45	0.31	45	0.20	43
9	0.27	36	0.32	43	0.39	44	0.39	40	0.38	45	0.29	45	0.22	39
10	0.23	36	0.36	43	0.41	44	0.45	39	0.38	45	0.28	45	0.21	40
11	0.28	36	0.37	42	0.44	44	0.42	39	0.38	45	0.27	44	0.22	40
12	0.26	36	0.36	42	0.45	44	0.43	39	0.38	45	0.30	45	0.20	40
13	0.26	36	0.35	53	0.44	44	0.40	40	0.36	45	0.26	45	0.23	39
14	0.29	35	0.36	43	0.46	44	0.44	40	0.37	45	0.29	45	0.18	40
15	0.34	36	0.34	43	0.45	44	0.43	40	0.37	45	0.26	45	0.20	39
16	0.29	37	0.36	44	0.44	44	0.42	39	0.37	45	0.29	45	0.20	38
17	0.27	37	0.35	44	0.46	45	0.39	40	0.36	45	0.28	44	0.20	38
18	0.30	37	0.36	44	0.45	45	0.42	40	0.36	45	0.28	44	0.20	37
19	0.32	37	0.33	44	0.47	45	0.39	40	0.34	45	0.28	45	0.19	39
20	0.32	37	0.36	44	0.44	44	0.45	40	0.34	45	0.26	45	0.18	37
21	0.29	37	0.37	44	0.44	44	0.40	40	0.33	45	0.28	44	0.15	35
22	0.29	37	0.35	44	0.50	44	0.41	40	0.33	45	0.26	45	0.15	36
23	0.30	39	0.35	44	0.46	44	0.40	40	0.33	45	0.24	45	0.17	35
24	0.28	39	0.40	44	0.45	45	0.42	39	0.34	45	0.25	44	0.16	36
25	0.28	39	0.35	44	0.43	45	0.39	40	0.34	45	0.26	42	0.14	33
26	0.28	39	0.37	44	0.46	45	0.37	40	0.31	45	0.27	43	0.14	35
27	0.27	41	0.40	43	0.44	45	0.39	40	0.33	45	0.26	45	0.15	36
28	0.31	42	0.41	44	0.46	45	0.38	40	0.33	45	0.26	45	0.13	35
29	0.32	42	0.38	44	0.44	45	0.38	40	0.33	45	0.26	45	0.14	35
30	0.33	40	0.39	44	0.47	44	0.41	40	0.35	44	0.28	45	0.14	34
31			0.43	44			0.39	38	0.32	45			0.12	7
<b>Total</b>	<b>7.40</b>		<b>10.78</b>		<b>12.97</b>		<b>12.88</b>		<b>11.04</b>		<b>8.43</b>		<b>5.09</b>	
<b>Mean</b>	<b>0.28</b>		<b>0.35</b>		<b>0.44</b>		<b>0.42</b>		<b>0.36</b>		<b>0.28</b>		<b>0.19</b>	

**Table 17a. Average Maximum (Max.), Average Minimum (Min.), and Average (Avg.) Soil Temperature ( $[\text{Max} + \text{Min}] / 2$ ) for each Day from January 1 to June 30 at the NMSU Agricultural Science Center at Farmington, NM, 2001–2016**

Day	January			February*			March			April			May			June		
	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.
1	31	28	29	35	31	33	45	35	40	61	46	54	71	53	62	84	66	75
2	31	28	29	34	31	32	44	35	40	61	47	54	70	53	62	85	67	76
3	31	27	29	35	30	32	46	35	41	61	45	53	71	53	62	85	69	77
4	31	27	29	35	30	33	47	36	42	61	47	54	71	53	62	84	69	77
5	31	27	29	35	30	33	47	37	42	62	47	55	74	55	64	84	69	76
6	30	27	29	36	30	33	48	36	42	62	47	55	74	55	64	84	69	76
7	31	27	29	36	31	33	50	38	44	61	46	54	74	56	65	85	69	77
8	31	28	30	37	31	34	51	38	44	63	47	55	74	57	65	86	69	78
9	31	28	30	37	31	34	49	37	43	64	48	56	74	57	65	86	69	78
10	31	28	30	37	32	34	50	38	44	64	48	56	74	57	65	85	70	77
11	32	29	30	37	31	34	51	39	45	62	49	55	75	58	66	86	69	78
12	32	28	30	36	32	34	52	39	45	63	48	56	75	58	66	84	69	77
13	32	28	30	37	32	35	53	40	46	65	49	57	76	58	67	83	68	76
14	32	28	30	39	33	36	54	41	47	67	49	58	76	59	68	84	68	76
15	32	28	30	39	33	36	55	41	48	67	51	59	77	61	69	86	69	78
16	31	28	30	40	33	37	55	41	47	66	50	58	77	61	69	86	71	78
17	31	27	29	41	34	37	56	41	49	67	52	59	77	62	69	88	72	80
18	31	28	29	42	34	38	56	43	49	67	51	59	79	62	71	88	72	80
19	32	28	30	43	35	39	56	42	49	67	50	58	79	62	71	90	72	81
20	33	29	31	44	35	39	55	42	48	69	51	60	79	62	71	89	72	80
21	33	29	31	43	35	39	56	42	49	67	53	60	80	62	71	89	72	80
22	32	30	31	44	24	29	57	43	50	68	52	60	80	61	71	89	73	81
23	32	29	30	43	35	39	58	44	51	69	53	61	79	62	70	90	74	82
24	33	30	31	43	35	39	58	43	50	69	51	60	77	61	69	91	75	83
25	33	30	31	43	35	39	59	44	51	69	52	60	79	62	70	91	75	83
26	34	30	32	44	35	39	59	43	51	69	52	61	81	63	72	90	75	83
27	33	30	32	44	35	40	58	43	50	69	53	61	81	64	73	90	74	82
28	35	30	33	43	34	39	60	42	51	71	53	62	82	64	73	91	75	83
29	34	31	33	44	35	39	58	44	51	70	54	62	83	65	74	91	75	83
30	34	31	32				59	44	52	70	55	63	82	65	74	91	75	83
31	34	31	32				58	44	51				83	65	74			
<b>Mean</b>	<b>32</b>	<b>29</b>	<b>30</b>	<b>39</b>	<b>33</b>	<b>36</b>	<b>54</b>	<b>40</b>	<b>47</b>	<b>66</b>	<b>50</b>	<b>58</b>	<b>77</b>	<b>60</b>	<b>68</b>	<b>87</b>	<b>71</b>	<b>79</b>

\*Soil temperature data shown for February 29 reflect summaries of 4 (leap) years only.

**Table 17b. Average Maximum (Max.), Average Minimum (Min.), and Average (Avg.) Soil Temperature ( $[\text{Max} + \text{Min}] / 2$ ) for each Day from July 1 to December 31 at the NMSU Agricultural Science Center at Farmington, NM, 2001–2016**

Day	July			August			September			October			November			December		
	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.
1	93	75	84	95	76	86	90	73	81	76	60	68	56	44	50	38	32	35
2	93	75	84	95	76	86	90	73	81	74	60	67	56	44	50	39	33	36
3	93	75	84	94	75	85	89	73	81	75	59	67	55	43	49	39	33	36
4	94	76	85	94	75	85	87	72	80	73	59	66	55	43	49	39	33	36
5	95	76	85	93	76	84	86	71	78	72	57	64	55	42	49	37	30	33
6	94	77	86	93	75	84	87	71	79	69	57	63	53	42	47	35	30	33
7	94	77	86	93	75	84	86	69	78	69	54	61	54	42	48	36	30	33
8	93	77	85	91	74	82	84	68	76	68	54	61	53	42	47	36	31	33
9	94	76	85	93	74	83	83	67	75	67	52	60	53	43	48	36	30	33
10	94	75	85	94	74	84	81	67	74	68	52	60	53	42	48	34	30	32
11	94	75	84	95	76	86	81	66	73	66	52	59	52	42	47	34	30	32
12	96	75	85	94	76	85	82	65	74	67	51	59	50	41	46	34	30	32
13	96	76	86	94	76	85	82	66	74	66	51	59	50	41	45	34	30	32
14	97	76	87	93	76	84	83	66	74	65	49	57	48	40	44	34	30	32
15	97	77	87	93	74	84	81	66	73	65	50	58	48	38	43	35	29	32
16	97	78	87	91	74	83	81	65	73	65	50	58	46	37	42	33	29	31
17	99	79	89	92	73	82	80	65	72	66	51	58	46	37	42	33	29	31
18	98	78	88	92	73	83	78	63	71	63	52	58	47	36	42	33	29	31
19	98	79	89	92	74	83	79	61	70	63	50	56	47	37	42	33	29	31
20	98	79	89	92	74	73	79	61	70	63	50	56	47	37	42	33	29	31
21	96	80	88	91	74	82	78	63	71	63	50	56	47	37	42	33	30	31
22	96	80	88	91	73	82	78	61	70	62	49	55	46	36	41	33	30	32
23	96	80	88	90	74	82	76	61	68	60	47	53	45	35	40	33	29	31
24	96	79	88	90	73	82	77	59	68	59	46	52	43	34	38	33	29	31
25	97	78	88	90	73	82	79	60	69	60	47	53	40	33	37	33	28	30
26	95	77	86	91	74	83	79	60	70	58	46	52	40	33	37	32	27	30
27	95	78	86	91	74	82	79	62	71	57	45	51	40	33	36	32	27	30
28	96	77	86	89	72	81	79	62	71	57	45	51	38	32	35	32	27	30
29	93	76	85	90	72	81	78	63	70	56	44	50	39	32	35	33	27	30
30	96	75	85	89	73	81	75	61	68	56	44	50	38	33	36	33	28	30
31	96	77	86	90	73	81				56	44	50				33	28	30
<b>Mean</b>	<b>96</b>	<b>77</b>	<b>86</b>	<b>92</b>	<b>74</b>	<b>83</b>	<b>82</b>	<b>65</b>	<b>73</b>	<b>65</b>	<b>51</b>	<b>58</b>	<b>48</b>	<b>38</b>	<b>43</b>	<b>34</b>	<b>30</b>	<b>32</b>



**Table 18. Frost Dates and Number of Consecutive Frost-free Days at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Year	Less than or equal to 32°F			Less than or equal to 28°F		
	Last spring frost (date)	First fall frost (date)	Frost-free period (days)	Last spring killing frost (date)	First fall killing frost (date)	Killing-frost-free period (days)
1969	Apr 27	Oct 5	161	Apr 26	Oct 6	163
1970	May 2	Oct 8	159	May 1	Oct 9	161
1971	May 9	<b>Sep 18<sup>a</sup></b>	132	Apr 27	<b>Sep 18<sup>a</sup></b>	<b>144<sup>a</sup></b>
1972	May 2	Oct 30	181	Apr 27	Oct 31	187
1973	May 2	Oct 11	162	May 2	Oct 27	178
1974	May 21	Oct 30	162	May 20	Nov 4	168
1975	May 8	Oct 14	159	May 7	Oct 14	160
1976	Apr 27	Oct 7	163	Apr 27	Oct 19	175
1977	Apr 21	Oct 31	<b>193<sup>b</sup></b>	Apr 5	Nov 2	211
1978	May 6	Oct 26	173	May 6	Nov 13	191
1979	May 12	Oct 21	162	Apr 20	Oct 22	185
1980	May 26	Oct 16	143	<b>May 25<sup>b</sup></b>	Oct 17	145
1981	May 9	Oct 16	160	Apr 5	Oct 17	195
1982	May 6	Oct 6	153	Apr 21	Oct 10	172
1983	May 19	Sep 21	125	May 17	Nov 9	176
1984	May 8	Oct 15	160	May 8	Oct 16	161
1985	May 14	Sep 30	139	Apr 1	Nov 1	214
1986	Apr 27	Oct 12	168	Apr 27	Oct 13	169
1987	Apr 21	Oct 19	181	Apr 21	Nov 11	204
1988	May 7	<b>Nov 12<sup>b</sup></b>	189	Apr 11	Nov 16	219
1989	Apr 30	Oct 18	171	Mar 21	Oct 27	<b>220<sup>b</sup></b>
1990	<b>Apr 10<sup>a</sup></b>	Oct 9	182	Mar 31	Oct 21	204
1991	May 5	Oct 28	176	Mar 29	Oct 29	214
1992	Apr 21	Oct 8	170	<b>Mar 19<sup>a</sup></b>	Oct 8	203
1993	May 9	Oct 19	163	Apr 20	Oct 27	190
1994	Apr 30	Oct 17	170	Apr 8	Oct 31	206
1995	Apr 25	Oct 6	164	Apr 18	Oct 6	171
1996	Apr 30	Sep 19	142	Apr 29	Oct 18	172
1997	May 2	Oct 13	164	May 2	Oct 13	164
1998	May 15	Oct 6	144	Apr 19	Oct 6	170
1999	<b>June 5<sup>b</sup></b>	Sep 28	<b>115<sup>a</sup></b>	Apr 16	Sep 29	166
2000	May 12	Oct 14	155	Apr 3	Nov 2	213
2001	Apr 23	Oct 11	171	Apr 13	Oct 11	181
2002	Apr 22	Oct 4	165	Apr 22	Nov 4	196
2003	May 11	Oct 27	169	Apr 8	Oct 27	202
2004	May 1	Oct 23	175	Mar 29	Oct 30	215
2005	Apr 22	Oct 31	192	Apr 21	Nov 15	208
2006	Apr 20	Sep 23	156	Apr 19	Oct 22	186
2007	May 7	Oct 19	165	Apr 19	Oct 22	187
2008	May 14	Oct 12	151	May 13	Oct 12	152
2009	Apr 27	Sep 22	148	Apr 16	Oct 2	169
2010	May 12	Oct 26	167	May 12	Oct 26	167
2011	May 3	Oct 8	158	May 2	Oct 25	176
2012	Apr 15	Oct 28	196	Apr 16	Oct 25	192
2013	May 4	Oct 5	154	May 3	Oct 17	167
2014	May 14	Nov 3	173	May 13	Nov 4	175
2015	May 10	Oct 28	171	Apr 17	Nov 6	203
2016	May 19	Oct 20	154	May 3	<b>Nov 18<sup>b</sup></b>	199
<b>Mean</b>	<b>May 5</b>	<b>Oct 14</b>	<b>163</b>	<b>Apr 22</b>	<b>Oct 23</b>	<b>184</b>

<sup>a</sup>Earliest date (or shortest frost-free period).

<sup>b</sup>Latest date (or longest frost-free period).

**Table 19. Average Daily Maximum Temperature (°F) in each Month at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Mean
1969	41.9	46.0	50.3	69.3	78.3	83.3	90.8	89.9	83.2	62.3	50.9	44.7	<b>65.9</b>
1970	43.0	54.3	52.3	59.8	77.7	84.3	91.3	90.9	78.1	62.8	54.8	44.2	<b>66.1</b>
1971	42.6	48.3	59.4	66.4	73.5	87.2	92.8	86.8	79.5	65.1	51.2	38.7	<b>66.0</b>
1972	43.1	53.7	65.8	69.5	77.5	86.4	93.3	86.5	79.8	63.1	<b>45.7<sup>a</sup></b>	36.8	<b>66.8</b>
1973	32.4	42.3	<b>49.5<sup>a</sup></b>	59.1	73.5	84.0	90.3	90.2	78.8	70.3	56.7	41.4	<b>64.0</b>
1974	34.0	<b>40.1<sup>a</sup></b>	61.6	64.5	80.2	90.6	89.3	88.1	80.4	67.2	52.2	38.6	<b>65.6</b>
1975	36.7	44.0	52.5	60.1	71.4	84.7	88.9	87.9	78.5	70.2	53.1	42.2	<b>64.2</b>
1976	41.3	53.9	56.4	68.0	75.7	86.6	92.3	88.0	79.0	65.3	53.1	44.7	<b>67.0</b>
1977	33.7	50.6	53.4	68.7	73.7	90.2	90.2	88.8	81.4	70.5	54.2	46.7	<b>66.8</b>
1978	41.2	44.4	57.9	64.7	<b>69.5<sup>a</sup></b>	85.2	90.3	85.7	78.1	69.6	51.2	<b>32.5<sup>a</sup></b>	<b>64.2</b>
1979	<b>31.2<sup>a</sup></b>	42.2	51.9	65.1	71.5	84.3	90.2	86.4	84.4	71.0	46.3	43.1	<b>64.0</b>
1980	40.7	49.8	52.8	64.6	72.5	89.8	92.9	87.0	79.4	65.2	54.5	<b>50.5<sup>b</sup></b>	<b>66.6</b>
1981	48.6	52.1	53.0	70.8	73.1	88.4	90.0	87.2	80.1	64.5	57.2	45.7	<b>67.6</b>
1982	40.5	41.3	54.4	63.5	71.6	84.1	88.9	84.5	77.7	64.1	50.2	40.7	<b>63.5<sup>a</sup></b>
1983	40.1	46.9	53.1	<b>58.7<sup>a</sup></b>	72.5	82.0	89.5	89.5	82.0	67.9	51.8	42.9	<b>64.7</b>
1984	40.9	48.3	55.3	61.0	80.5	83.6	91.1	87.3	79.9	<b>57.7<sup>a</sup></b>	54.2	45.3	<b>65.4</b>
1985	40.0	45.3	54.8	68.1	75.4	87.9	90.5	89.5	75.2	66.4	50.8	42.9	<b>65.6</b>
1986	49.2	51.4	60.7	64.5	75.3	84.6	<b>86.3<sup>a</sup></b>	88.4	<b>74.2<sup>a</sup></b>	64.5	50.0	43.5	<b>66.0</b>
1987	40.1	46.9	52.3	68.7	74.0	87.3	89.8	85.8	79.7	70.6	50.4	39.7	<b>65.4</b>
1988	35.5	47.7	55.9	66.1	74.1	88.1	91.4	86.7	79.6	<b>73.1<sup>b</sup></b>	52.4	42.4	<b>66.1</b>
1989	38.5	45.7	63.3	<b>72.9<sup>b</sup></b>	79.5	86.4	92.7	86.5	83.4	67.5	55.6	45.3	<b>68.1</b>
1990	40.3	47.0	58.4	66.9	74.0	90.9	89.3	86.5	81.5	67.7	53.5	34.6	<b>65.9</b>
1991	35.1	48.7	53.3	64.9	75.5	84.1	89.8	88.0	79.4	69.9	48.4	37.4	<b>64.5</b>
1992	38.5	50.5	57.2	71.6	75.6	84.2	86.6	86.5	81.0	71.4	47.1	35.9	<b>65.5</b>
1993	43.9	47.9	59.0	66.9	76.6	85.7	90.8	84.1	79.5	65.2	50.2	42.8	<b>66.1</b>
1994	45.6	46.6	61.4	66.1	77.3	90.6	93.0	90.7	80.8	65.5	49.1	45.6	<b>67.7</b>
1995	42.6	<b>57.5<sup>b</sup></b>	57.9	61.7	71.4	83.6	90.9	90.4	80.2	69.5	58.4	46.3	<b>67.5</b>
1996	45.1	53.6	59.0	68.1	81.7	87.6	91.6	88.3	75.9	5.4	52.3	43.8	<b>67.7</b>
1997	38.9	47.7	64.0	61.4	77.4	86.0	89.5	86.8	82.1	67.0	53.6	41.6	<b>66.3</b>
1998	44.5	45.9	56.9	63.0	78.2	85.7	90.3	90.0	<b>85.7<sup>b</sup></b>	67.2	55.7	45.2	<b>67.3</b>
1999	49.9	54.4	64.3	63.2	73.3	86.1	88.6	<b>84.1<sup>a</sup></b>	79.2	72.2	<b>62.5<sup>b</sup></b>	43.5	<b>68.4</b>
2000	46.2	53.7	55.5	70.8	<b>82.3<sup>b</sup></b>	89.0	92.5	91.0	83.6	65.2	45.8	44.6	<b>68.3</b>
2001	40.9	48.6	58.2	68.3	79.5	89.1	91.3	88.4	85.4	71.8	57.5	42.9	<b>68.5</b>
2002	44.3	49.9	57.6	72.5	79.5	<b>92.7<sup>b</sup></b>	93.9	89.8	79.2	64.8	52.8	42.5	<b>68.3</b>
2003	<b>51.5<sup>b</sup></b>	47.6	57.4	66.6	79.4	87.7	<b>97.2<sup>b</sup></b>	<b>91.2<sup>b</sup></b>	81.5	72.9	51.6	45.5	<b>69.2<sup>b</sup></b>
2004	41.0	44.9	<b>66.5<sup>b</sup></b>	65.0	80.3	88.8	91.4	87.8	77.8	66.2	50.7	44.3	<b>67.1</b>
2005	47.9	49.0	55.7	67.8	78.7	86.5	96.5	87.3	82.3	68.2	56.5	44.6	<b>68.4</b>
2006	46.2	52.2	56.0	71.0	82.1	91.7	91.3	85.5	74.4	63.6	55.9	42.4	<b>67.7</b>
2007	38.0	48.3	51.3	66.8	74.3	88.6	92.4	90.2	81.0	69.3	58.3	38.4	<b>67.2</b>
2008	34.4	43.9	57.4	65.5	73.0	85.5	89.9	87.3	80.3	68.2	55.2	39.7	<b>65.0</b>
2009	42.3	50.8	58.7	64.4	77.7	<b>81.4<sup>a</sup></b>	91.6	88.1	79.9	62.5	55.1	35.8	<b>65.7</b>
2010	35.6	42.6	54.9	64.7	73.7	87.7	89.9	84.7	81.9	68.3	51.1	46.5	<b>65.1</b>
2011	35.5	44.4	59.8	63.5	71.5	87.4	91.4	89.7	78.3	65.1	50.9	39.6	<b>64.8</b>
2012	45.3	46.3	60.5	69.9	79.2	90.7	89.4	89.0	80.9	69.3	57.6	41.1	<b>68.3</b>
2013	35.1	43.3	59.8	65.2	75.0	90.3	89.8	86.4	79.0	63.4	51.8	38.3	<b>64.8</b>
2014	46.4	52.3	58.5	65.0	74.7	87.5	91.8	85.6	81.7	69.4	54.7	42.6	<b>67.5</b>
2015	41.6	52.2	62.6	65.6	70.4	96.6	86.7	88.2	82.7	70.4	52.3	40.5	<b>66.7</b>
2016	39.2	51.9	60.6	65.3	73.5	91.6	91.2	84.0	79.0	72.3	54.9	43.6	<b>67.3</b>
<b>Mean</b>	<b>41.1</b>	<b>48.3</b>	<b>57.5</b>	<b>66.0</b>	<b>75.8</b>	<b>87.0</b>	<b>90.9</b>	<b>87.7</b>	<b>80.1</b>	<b>67.3</b>	<b>52.9</b>	<b>42.1</b>	<b>66.4</b>

<sup>a</sup>Lowest average daily maximum temperature for month or year during 48-year period.

<sup>b</sup>Highest average daily maximum temperature for month or year during 48-year period.

**Table 20. Average Daily Mean Temperature (°F) Recorded in each Month at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Mean
1969	33.5	35.0	37.4 <sup>a</sup>	52.3	63.0	67.3	75.7	75.9	69.1	50.4	39.3	33.4	52.7
1970	31.3	40.5	39.2	44.5 <sup>a</sup>	60.5	68.5	76.5	76.3 <sup>b</sup>	63.6	49.4	42.2	33.1	52.1
1971	29.6	33.9	42.7	49.6	57.5	70.6	76.8	73.4	63.5	51.7	39.6	29.6	51.5
1972	30.3	38.1	48.3	52.5	60.2	70.6	77.6	73.2	66.5	54.0	36.5	26.1	52.8
1973	22.2 <sup>a</sup>	33.9	39.2	45.6	58.6	67.8	74.9	74.9	63.6	55.2	43.7	30.2	50.8
1974	23.8	28.7 <sup>a</sup>	47.3	48.6	63.2	73.9	75.1	73.4	65.2	55.6	40.4	28.0	51.9
1975	25.6	33.4	40.1	45.7	55.4 <sup>a</sup>	66.6	74.5	72.4	64.3	54.6	38.5	30.5	50.1 <sup>a</sup>
1976	28.7	40.8	40.9	52.3	60.2	69.8	77.3	73.4	66.4	51.3	39.5	30.7	52.6
1977	24.6	36.5	39.3	53.7	59.0	74.4	76.2	75.1	68.2	56.4	42.8	36.2	53.5
1978	33.3	34.4	45.6	51.5	56.0	69.3	75.5	71.4	64.9	56.2	41.9	23.8	52.0
1979	23.5	31.9	39.8	49.7	57.5	67.2	74.0	71.6	68.5	55.4	35.4	31.5	50.5
1980	33.4	38.7	39.9	48.6	56.9	70.9	76.0	72.4	64.6	50.3	40.8	37.2	52.5
1981	34.3	37.6	41.1	55.0	58.3	71.1	74.0	71.5	64.9	51.0	43.7	33.6	53.0
1982	29.5	31.3	42.2	49.0	57.2	67.4	73.5	72.0	64.9	49.6	39.5	31.5	50.6
1983	30.7	36.6	42.1	44.7	56.7	66.4 <sup>a</sup>	74.0	75.3	37.2	54.5	40.2	33.6	51.8
1984	28.6	34.3	41.1	47.2	63.8	68.5	76.1	73.5	65.8	47.0 <sup>a</sup>	41.8	34.9	51.9
1985	30.0	32.1	43.3	52.9	60.4	70.7	75.5	74.2	61.4	53.8	39.8	31.2	52.1
1986	36.1	38.8	46.8	51.5	59.5	69.6	72.5	73.9	61.9	52.1	39.7	32.7	52.9
1987	29.0	35.7	39.2	53.6	59.4	70.1	73.2	71.4	64.5	55.4	39.1	29.2	51.6
1988	24.0	36.0	40.6	51.1	49.1	71.9	76.0	71.4	64.0	57.9	40.8	30.8	52.1
1989	27.1	34.9	48.8	56.4	63.2	70.2	78.0	72.3	68.7	54.0	40.8	30.8	53.8
1990	29.1	36.1	46.5	53.9	59.5	74.9 <sup>b</sup>	75.9	73.2	68.8	53.8	42.2	23.0 <sup>a</sup>	53.1
1991	25.6	36.9	41.6	49.3	59.5	68.4	74.6	73.6	65.3	54.8	37.9	29.4	51.4
1992	28.2	38.8	44.7	56.0	62.0	68.3	71.8 <sup>a</sup>	72.2	65.6	55.8	34.6 <sup>a</sup>	25.7	52.0
1993	35.0	37.9	44.2	51.2	60.8	68.6	73.8	70.8	64.0	51.5	37.7	31.4	52.2
1994	32.3	35.5	46.4	51.9	61.6	73.2	76.7	76.0	65.6	52.2	38.0	34.7	53.6
1995	33.3	43.4 <sup>b</sup>	44.5	48.2	57.1	66.7	74.5	75.7	66.2	53.3	43.8	34.5	53.4
1996	32.0	40.5	43.8	51.3	64.2	70.8	75.9	72.9	61.2	51.6	40.0	32.4	56.0
1997	28.9	35.7	46.2	46.7	61.5	69.8	74.0	73.0	68.1	51.9	40.6	30.8	52.3
1998	33.4	35.2	42.5	48.0	61.3	67.2	76.1	74.4	69.8 <sup>b</sup>	53.4	42.2	32.0	53.0
1999	35.4	39.1	47.8	48.7	58.3	68.1	73.9	70.5 <sup>a</sup>	62.8	54.2	45.4 <sup>b</sup>	29.3	52.8
2000	34.1	40.7	42.1	54.7	63.3	71.4	75.2	74.6	68.0	53.6	35.5	33.9	53.9
2001	31.1	37.1	45.3	53.9	63.4	71.7	76.9	73.8	69.5	56.9	44.7	30.7	54.6
2002	31.4	33.7	41.7	56.7 <sup>b</sup>	62.7	74.7	77.6	73.7	64.9	52.0	39.7	32.1	53.4
2003	38.2 <sup>b</sup>	35.7	43.9	51.0	62.9	70.5	80.4 <sup>b</sup>	76.3	65.7	58.2 <sup>b</sup>	40.3	33.5	54.7 <sup>b</sup>
2004	29.9	33.3	50.8 <sup>b</sup>	51.8	63.4	71.7	75.3	72.7	64.3	53.3	40.1	32.5	53.3
2005	38.1	39.8	42.7	52.5	62.7	69.1	79.2	73.0	68.2	55.7	43.0	31.7	54.6
2006	33.5	36.7	43.4	55.0	65.2 <sup>b</sup>	74.5	77.5	72.6	60.9 <sup>a</sup>	51.7	43.3	31.2	53.8
2007	27.2	36.9	46.4	52.5	61.1	72.1	77.4	76.2	66.9	54.4	43.2	32.0	53.9
2008	23.9	33.8	42.1	46.5	56.4	69.8	75.3	73.9	65.8	54.0	43.3	30.9	51.3
2009	32.2	38.0	45.0	49.3	63.5	67.8	77.0	73.1	66.4	59.4	42.7	25.9	52.5
2010	26.3	33.5	41.7	50.7	57.7	71.5	75.8	71.9	67.4	55.5	38.5	37.3 <sup>b</sup>	52.3
2011	24.5	31.8	45.3	49.8	56.8	71.1	76.4	75.7	65.2	52.2	39.9	29.7	51.5
2012	32.3	34.5	45.4	54.5	62.9	74.1	75.5	75.1	66.7	54.5	43.9	31.0	54.2
2013	24.2	31.8	44.5	50.4	59.7	73.1	76.5	73.1	66.8	49.7	40.6	27.9	51.5
2014	32.2	38.9	44.3	50.2	59.6	70.9	77.3	72.0	68.7	56.3	41.5	34.0	53.8
2015	32.7	39.7	48.1	51.0	57.5	71.8	73.4	74.1	68.4	58.1	40.3	29.5	53.7
2016	29.3	38.2	45.3	51.0	59.1	75.9	76.0	71.4	65.2	58.2	44.5	33.8	54.0
<b>Mean</b>	<b>30.1</b>	<b>36.4</b>	<b>43.6</b>	<b>50.9</b>	<b>60.2</b>	<b>70.4</b>	<b>75.7</b>	<b>73.5</b>	<b>65.8</b>	<b>53.6</b>	<b>40.7</b>	<b>31.2</b>	<b>52.7</b>

<sup>a</sup>Lowest average daily mean temperature for month or year during 48-year period.

<sup>b</sup>Highest average daily mean temperature for month or year during 48-year period.

**Table 21. Average Daily Minimum Temperature (°F) Recorded in each Month at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Mean
1969	25.1	24.0	<b>24.5<sup>a</sup></b>	35.2	47.8	51.3	60.7	61.9	54.9	38.5	27.6	22.1	<b>39.5</b>
1970	19.5	26.6	26.2	29.2	43.2	52.7	61.7	61.6	49.0	35.9	29.6	22.1	<b>38.1</b>
1971	16.5	19.5	26.0	32.8	41.4	54.0	60.7	60.0	47.5	38.3	28.0	20.5	<b>37.1</b>
1972	17.5	22.5	30.8	35.5	42.9	54.7	61.8	59.9	53.2	<b>45.0<sup>b</sup></b>	27.2	15.4	<b>38.9</b>
1973	<b>12.0<sup>a</sup></b>	25.5	29.0	32.0	43.6	51.5	59.5	59.6	48.5	40.0	30.7	18.9	<b>37.6</b>
1974	13.7	<b>17.3<sup>a</sup></b>	32.9	32.8	46.2	57.1	60.8	58.8	50.0	44.0	28.5	17.4	<b>38.3</b>
1975	14.5	22.9	27.7	31.3	<b>39.5<sup>a</sup></b>	<b>48.6<sup>a</sup></b>	60.1	56.8	50.0	39.0	23.9	18.9	<b>36.1<sup>a</sup></b>
1976	16.2	27.7	25.4	36.5	44.7	53.0	62.4	58.8	53.8	37.4	25.8	16.7	<b>38.2</b>
1977	15.5	22.3	25.2	38.7	44.4	58.5	62.2	61.4	54.9	42.2	31.4	25.6	<b>10.2</b>
1978	25.4	24.5	33.4	38.3	42.5	53.4	60.7	57.1	51.6	42.7	32.5	15.0	<b>39.8</b>
1979	15.8	21.6	27.6	34.3	43.5	50.2	57.9	56.7	52.7	39.9	24.5	19.9	<b>37.0</b>
1980	26.1	27.7	27.0	32.6	41.3	52.0	59.2	57.7	49.7	35.4	27.1	23.8	<b>38.3</b>
1981	20.0	23.0	29.2	39.2	43.5	53.7	57.9	<b>55.9<sup>a</sup></b>	49.6	37.5	30.3	21.5	<b>38.5</b>
1982	18.4	21.4	29.9	34.4	42.8	50.7	58.0	59.5	52.1	<b>35.2<sup>a</sup></b>	28.9	22.2	<b>37.8</b>
1983	21.4	26.3	31.0	30.6	40.8	50.7	58.4	61.1	52.4	41.2	28.6	24.3	<b>38.9</b>
1984	16.3	20.3	26.9	33.4	47.1	53.4	61.1	59.8	51.7	36.4	29.5	24.6	<b>38.4</b>
1985	19.9	18.9	31.9	37.6	45.5	53.5	60.5	58.9	47.6	41.2	28.9	19.4	<b>38.7</b>
1986	23.1	26.3	32.8	38.5	43.7	54.5	58.7	59.5	49.6	39.7	29.4	21.9	<b>39.8</b>
1987	18.0	24.6	26.1	38.5	44.8	52.9	<b>56.5<sup>a</sup></b>	56.9	49.3	40.2	27.7	18.7	<b>37.9</b>
1988	12.4	24.3	25.2	36.0	44.0	55.8	60.7	60.2	48.4	42.7	29.3	19.2	<b>38.2</b>
1989	15.6	24.1	34.3	39.9	46.9	53.9	63.2	58.0	53.9	40.5	26.1	16.3	<b>39.4</b>
1990	17.9	25.3	34.6	<b>40.9<sup>b</sup></b>	45.1	58.9	62.6	59.8	<b>56.0<sup>b</sup></b>	39.9	31.0	<b>11.4<sup>a</sup></b>	<b>40.3</b>
1991	16.2	25.0	30.0	33.7	43.5	52.7	59.4	59.2	51.2	39.7	27.3	21.4	<b>38.3</b>
1992	17.9	27.0	32.3	40.3	48.3	52.3	57.0	57.8	50.1	40.3	<b>22.0<sup>a</sup></b>	15.5	<b>38.4</b>
1993	26.0	27.9	29.5	35.5	44.9	51.5	56.7	57.6	47.4	27.8	25.2	20.0	<b>38.4</b>
1994	19.0	23.8	31.4	37.6	45.9	55.8	60.3	61.2	50.3	38.9	27.0	23.8	<b>39.6</b>
1995	24.0	29.3	31.1	34.7	42.8	49.8	58.1	61.0	52.1	37.0	29.2	22.7	<b>39.3</b>
1996	18.8	27.5	28.5	34.4	46.7	53.9	60.2	57.5	46.5	37.8	27.7	21.1	<b>38.4</b>
1997	19.0	23.7	28.4	31.9	45.6	53.6	58.5	59.3	54.2	36.8	2.7	20.1	<b>38.2</b>
1998	22.3	24.4	38.1	32.9	44.5	48.8	62.0	58.7	53.9	39.6	28.8	18.7	<b>38.6</b>
1999	20.9	23.8	31.3	34.2	43.3	50.1	59.2	57.0	<b>46.3<sup>a</sup></b>	36.2	<b>28.3</b>	15.0	<b>37.1</b>
2000	22.0	27.7	28.7	38.6	44.3	53.8	57.8	58.2	52.4	42.0	25.2	23.1	<b>39.5</b>
2001	21.3	25.6	32.4	39.6	47.4	54.2	62.6	59.2	53.6	42.0	31.9	18.6	<b>40.7</b>
2002	18.5	17.5	25.7	40.8	45.9	56.7	61.3	57.6	50.7	39.2	26.5	21.6	<b>38.5</b>
2003	24.9	23.9	30.5	35.4	46.5	53.4	63.6	61.5	49.9	43.5	29.0	21.6	<b>40.3</b>
2004	18.8	21.8	<b>35.1<sup>b</sup></b>	38.7	46.5	54.6	59.1	57.6	50.8	40.5	29.5	20.7	<b>39.5</b>
2005	<b>28.4<sup>b</sup></b>	<b>30.5<sup>b</sup></b>	29.7	37.0	46.6	51.7	62.0	58.8	54.0	43.2	29.4	18.7	<b>40.9<sup>b</sup></b>
2006	20.7	21.2	30.7	39.0	48.3	57.2	<b>63.7<sup>b</sup></b>	59.7	47.5	39.8	30.7	20.0	<b>39.9</b>
2007	16.5	25.5	31.5	38.2	47.8	55.7	62.3	<b>62.2<sup>b</sup></b>	52.9	39.5	28.2	25.5	<b>40.5</b>
2008	13.4	23.7	26.9	<b>27.5<sup>a</sup></b>	39.8	54.1	60.7	60.4	51.3	39.9	31.5	22.1	<b>37.6</b>
2009	22.2	25.1	31.4	34.1	<b>49.3<sup>b</sup></b>	54.3	62.3	58.1	52.8	36.3	30.2	15.9	<b>39.3</b>
2010	17.0	24.3	28.4	36.6	41.6	55.4	61.6	59.1	52.9	42.7	25.9	<b>28.0<sup>b</sup></b>	<b>39.5</b>
2011	13.5	19.2	30.8	36.1	42.1	54.7	61.4	61.7	52.2	39.4	28.9	19.8	<b>38.3</b>
2012	19.3	22.8	30.3	39.1	46.6	57.5	61.6	61.3	52.5	39.6	30.3	20.8	<b>40.1</b>
2013	13.2	20.4	29.3	35.6	44.5	55.9	63.2	59.8	54.7	36.0	29.4	17.4	<b>38.3</b>
2014	18.0	25.6	30.0	35.4	44.6	54.3	62.8	58.5	55.6	43.2	28.3	25.4	<b>40.1</b>
2015	23.7	27.2	33.6	36.4	44.6	57.0	60.1	60.0	54.0	45.7	28.3	18.6	<b>40.8</b>
2016	19.5	24.4	30.1	36.7	44.7	<b>60.2<sup>b</sup></b>	60.8	58.9	51.4	44.1	<b>34.1<sup>b</sup></b>	23.9	<b>40.7</b>
<b>Mean</b>	<b>19.1</b>	<b>24.1</b>	<b>29.6</b>	<b>35.8</b>	<b>44.6</b>	<b>53.8</b>	<b>60.5</b>	<b>59.2</b>	<b>51.4</b>	<b>39.9</b>	<b>28.5</b>	<b>20.3</b>	<b>38.9</b>

<sup>a</sup>Lowest average daily minimum temperature for month or year during 48-year period.

<sup>b</sup>Highest average daily minimum temperature for month or year during 48-year period.

**Table 22. Highest Temperature (°F) Recorded in each Month and Year at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Highest in Year
1969	57	61	74	82	89	96	96	97	95	78	63	56	97
1970	56	65	65	72	86	98	98	99	90	76	64	61	99
1971	60	64	77	77	84	97	101	91	90	76	70	57	101
1972	61	66	76	78	86	94	100	98	89	82	57	52	100
1973	47	61	63	76	85	98	99	97	88	81	73	65	99
1974	45	60	72	75	93	99	95	94	93	83	64	56	99
1975	61	58	65	77	85	96	95	95	89	84	73	57	96
1976	54	68	71	77	86	98	100	93	94	78	70	55	100
1977	46	65	69	81	91	98	97	98	93	82	74	63	98
1978	53	59	79	78	88	95	95	94	90	83	67	47	95
1979	46	60	62	78	82	96	97	96	94	83	60	54	97
1980	59	64	67	81	86	99	97	97	88	84	73	63	99
1981	60	67	71	84	84	100	98	96	87	74	68	56	100
1982	60	64	67	76	82	93	97	95	91	79	64	53	97
1983	53	63	68	83	89	92	96	99	93	74	70	50	99
1984	51	60	69	79	93	94	95	93	89	75	68	54	95
1985	50	60	70	79	85	95	100	95	91	75	68	51	100
1986	64	70	75	79	85	94	96	96	88	75	60	55	96
1987	56	61	69	81	82	93	98	93	89	83	66	58	98
1988	49	62	77	78	87	99	96	93	93	83	70	56	99
1989	50	67	81	85	90	98	103	92	91	81	67	53	103
1990	56	64	74	80	86	103	98	94	93	79	68	55	103
1991	44	58	67	79	85	94	97	93	91	82	67	47	97
1992	54	65	67	86	85	92	95	95	89	83	61	49	95
1993	58	61	72	81	89	96	96	96	88	84	61	56	96
1994	58	63	74	81	92	100	97	97	89	80	70	55	100
1995	53	68	74	77	82	92	101	97	97	83	68	64	101
1996	56	65	71	82	90	93	96	96	90	83	66	57	96
1997	58	60	75	76	91	93	98	92	91	84	68	54	98
1998	56	62	77	80	87	100	100	97	90	80	67	60	100
1999	62	65	75	78	85	94	99	91	89	85	75	67	99
2000	66	66	70	85	97	94	97	97	93	83	57	55	97
2001	51	62	70	81	90	97	99	94	93	81	75	59	99
2002	59	63	74	81	98	97	100	98	90	77	63	55	100
2003	59	59	74	78	95	96	103	98	92	87	64	62	103
2004	51	62	82	78	89	96	99	97	91	78	67	60	99
2005	57	57	68	80	94	98	103	95	89	83	74	59	103
2006	57	67	71	85	92	99	100	92	87	83	69	54	100
2007	56	64	76	83	85	95	98	96	89	80	71	53	98
2008	51	61	70	81	87	93	95	97	87	81	74	53	97
2009	53	69	73	78	88	92	96	96	88	77	72	49	96
2010	44	50	75	78	90	98	98	94	89	86	71	59	98
2011	50	63	72	79	87	96	97	95	88	81	68	56	97
2012	53	59	78	85	87	98	97	95	90	83	70	60	98
2013	54	58	74	82	87	99	97	92	91	77	68	55	99
2014	60	66	69	78	91	96	97	92	91	77	74	57	97
2015	58	66	78	79	86	98	97	94	88	88	71	57	98
2016	57	66	73	82	85	101	97	94	88	79	68	56	101
<b>Highest in Month</b>	<b>66</b>	<b>70</b>	<b>82</b>	<b>86</b>	<b>98</b>	<b>103</b>	<b>103</b>	<b>99</b>	<b>97</b>	<b>88</b>	<b>75</b>	<b>67</b>	<b>103</b>

**Table 23. Lowest Temperature (°F) Recorded in each Month and Year at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Lowest in Year
1969	9	12	13	27	37	44	43	52	46	26	14	7	7
1970	0	15	11	20	27	39	53	54	34	21	18	14	0
1971	-18	5	6	17	31	38	54	54	28	18	17	4	-18
1972	2	2	14	24	30	47	56	54	37	22	15	2	2
1973	1	10	20	18	28	41	52	49	37	26	14	9	1
1974	-11	1	20	18	28	38	53	52	33	30	14	1	-11
1975	-2	9	9	19	23	38	55	49	40	20	7	6	-2
1976	-4	12	11	23	34	38	54	52	42	22	1	9	-4
1977	-2	13	12	21	33	51	57	54	46	32	20	10	-2
1978	12	0	20	26	28	45	51	46	33	31	18	-9	-9
1979	-8	5	17	16	29	36	51	48	42	23	6	9	-8
1980	14	18	13	18	27	36	53	41	37	17	12	11	11
1981	10	11	21	19	32	36	44	49	42	21	13	4	4
1982	-1	-3	19	22	30	38	47	54	38	21	17	6	-3
1983	9	20	22	20	27	36	45	55	30	35	11	10	9
1984	2	11	14	18	27	40	53	54	39	23	15	13	2
1985	6	-1	13	28	29	39	53	51	31	29	8	8	-1
1986	8	8	19	23	33	42	53	52	40	28	16	8	8
1987	2	8	9	24	35	43	50	47	40	30	14	1	1
1988	-3	16	9	21	30	38	54	54	33	36	12	1	-3
1989	4	-14	14	29	36	41	55	48	36	15	9	3	-14
1990	0	4	19	30	39	35	55	52	45	26	16	-16	-16
1991	-3	12	17	24	30	39	53	54	39	20	11	3	-3
1992	10	17	20	30	40	41	47	46	37	28	7	-2	-2
1993	10	18	15	24	32	39	46	52	38	17	8	8	8
1994	7	4	12	26	35	46	50	57	39	26	8	11	4
1995	12	21	18	24	34	38	45	55	36	24	13	9	9
1996	6	12	16	20	39	41	54	52	29	16	19	3	3
1997	-1	13	13	19	26	46	51	53	43	19	17	8	-1
1998	12	15	13	25	31	40	59	52	46	27	16	3	3
1999	11	7	21	20	30	32	50	49	28	19	9	3	3
2000	1	14	17	28	29	44	52	52	33	32	10	11	1
2001	10	8	21	24	34	36	57	52	36	28	13	8	8
2002	3	6	3	27	35	48	56	50	39	30	19	8	3
2003	17	8	22	24	29	46	53	57	41	28	12	7	7
2004	8	6	21	32	32	44	52	51	35	26	8	4	4
2005	19	18	20	20	34	37	56	53	42	30	16	-2	-2
2006	10	11	17	27	35	48	56	49	31	24	4	5	4
2007	4	3	9	24	32	38	56	56	33	19	14	12	3
2008	-7	4	17	18	15	40	54	53	41	22	13	7	-7
2009	15	12	21	19	43	44	56	48	31	22	12	1	1
2010	5	12	18	21	26	44	49	53	44	24	6	3	3
2011	-5	-6	19	21	26	46	51	57	44	27	19	4	-6
2012	7	16	13	25	37	45	57	55	45	24	16	22	7
2013	-6	11	13	21	28	40	57	52	33	27	15	19	-6
2014	8	14	18	25	27	46	58	48	41	35	12	19	8
2015	9	15	16	24	32	49	54	56	48	31	15	15	9
2016	8	8	20	25	35	50	54	49	37	31	12	27	8
<b>Lowest in Month</b>	<b>-18</b>	<b>-14</b>	<b>3</b>	<b>16</b>	<b>15</b>	<b>32</b>	<b>43</b>	<b>41</b>	<b>28</b>	<b>15</b>	<b>1</b>	<b>-16</b>	<b>-18</b>

**Table 24. Total Monthly Measurable Precipitation (inches) Recorded at the NMSU Agricultural Science Center at Farmington, NM, 1969–2016**

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total for Year
1969	0.85	0.31	0.21	0.30	1.13	1.00	0.69	0.47	2.07	2.88	0.38	0.29	<b>10.58</b>
1970	0.06	0.03	0.54	0.60	0.11	0.81	0.68	0.02	2.48	0.48	0.46	0.20	<b>6.47</b>
1971	0.18	0.09	0.05	0.11	0.41	0.00	0.31	1.72	1.13	1.08	0.77	0.16	<b>6.01</b>
1972	0.03	0.00	0.03	0.00	0.02	0.18	0.04	1.34	0.57	<b>3.53<sup>a</sup></b>	0.19	0.93	<b>6.86</b>
1973	0.28	0.17	1.82	1.54	0.65	0.95	0.27	0.61	1.49	0.35	0.30	0.37	<b>8.80</b>
1974	1.10	0.13	0.01	0.20	0.02	0.09	1.48	0.12	0.37	2.39	0.48	0.38	<b>6.77</b>
1975	0.11	0.61	1.52	0.78	0.35	0.13	0.84	0.24	0.80	0.14	0.22	0.20	<b>5.94</b>
1976	0.06	0.16	0.00	0.10	0.41	0.09	0.62	0.80	1.31	0.01	0.01	0.00	<b>3.57<sup>b</sup></b>
1977	0.42	0.00	0.00	0.03	0.29	0.04	1.03	1.41	0.38	0.30	0.62	0.63	<b>5.15</b>
1978	0.90	0.64	1.27	0.71	0.96	0.00	0.07	0.18	1.55	1.46	2.24	0.59	<b>10.57</b>
1979	0.88	0.19	0.46	0.28	0.58	0.43	1.40	0.49	0.08	1.37	0.97	0.73	<b>7.86</b>
1980	1.45	0.70	0.63	0.25	0.25	0.07	0.08	0.89	1.05	0.84	0.02	0.00	<b>6.23</b>
1981	0.00*	0.30	1.76	0.21	1.05	0.60	0.90	0.28	0.69	0.89	0.36	0.10	<b>7.14</b>
1982	0.25	0.77	1.20	0.65	0.82	0.00	1.27	2.78	1.50	0.16	0.92	0.76	<b>11.08</b>
1983	0.94	0.77	1.76	0.39	0.05	0.35	1.67	0.72	0.69	0.36	0.91	0.67	<b>9.28</b>
1984	0.00	0.12	0.54	1.00	0.06	0.61	0.62	1.79	0.30	1.13	0.23	0.87	<b>7.27</b>
1985	0.39	0.13	1.74	1.76	0.29	0.01	1.38	0.43	1.31	1.21	0.52	0.22	<b>9.39</b>
1986	0.11	0.77	0.51	0.97	0.13	0.74	<b>4.10<sup>a</sup></b>	0.93	2.18	0.92	<b>2.46<sup>a</sup></b>	0.76	<b>14.58<sup>a</sup></b>
1987	0.10	1.75	0.66	0.04	0.64	0.02	0.28	1.17	0.27	1.20	1.52	0.59	<b>8.24</b>
1988	0.63	0.82	0.06	0.68	1.11	0.33	0.58	2.34	0.27	0.22	0.78	0.19	<b>8.01</b>
1989	1.19	0.56	0.06	0.00	0.00	0.00	2.40	0.46	0.14	0.51	0.00	0.00	<b>5.32</b>
1990	0.53	0.61	0.66	1.04	0.88	0.07	0.35	1.32	1.97	1.12	0.78	0.59	<b>9.92</b>
1991	0.59	0.42	0.51	0.01	0.51	0.45	0.37	0.56	1.38	0.38	2.24	0.84	<b>8.26</b>
1992	0.15	0.18	0.84	0.15	<b>1.78<sup>a</sup></b>	0.02	0.98	1.34	0.76	0.43	0.30	0.63	<b>7.56</b>
1993	<b>2.18<sup>a</sup></b>	1.13	0.49	0.28	0.38	0.04	0.03	2.06	0.84	1.25	0.47	0.15	<b>9.30</b>
1994	0.09	0.48	0.24	0.57	1.32	0.07	0.20	0.66	1.69	0.86	0.96	0.64	<b>7.78</b>
1995	0.57	0.36	1.23	1.29	0.89	0.14	0.12	1.88	2.04	0.16	0.08	0.39	<b>9.15</b>
1996	0.28	0.24	0.28	0.17	0.00	0.65	0.23	1.07	0.63	2.21	0.72	0.22	<b>6.70</b>
1997	1.03	0.51	0.00	<b>2.88<sup>a</sup></b>	0.82	0.62	1.28	1.86	1.94	0.43	0.67	0.80	<b>12.84</b>
1998	0.12	0.61	0.65	0.73	0.03	0.02	1.39	1.57	0.58	2.19	1.15	0.09	<b>9.13</b>
1999	0.11	0.05	0.13	1.33	1.14	0.44	2.51	<b>3.01<sup>a</sup></b>	0.23	0.01	0.06	0.18	<b>9.20</b>
2000	0.68	0.13	<b>2.19<sup>a</sup></b>	0.07	0.03	0.12	0.80	1.22	0.50	2.16	0.78	0.22	<b>8.90</b>
2001	0.44	0.80	1.37	0.67	0.87	0.03	0.87	0.98	0.24	0.24	0.48	0.55	<b>7.54</b>
2002	0.04	0.04	0.17	0.37	0.00	0.00	0.42	0.32	3.26	1.75	0.72	0.60	<b>7.69</b>
2003	0.08	1.34	0.44	0.02	0.16	0.00	0.11	1.24	0.87	0.72	1.03	0.31	<b>6.32</b>
2004	0.40	0.84	0.00	2.50	0.00	0.14	0.38	0.16	2.53	0.60	0.82	0.37	<b>8.74</b>
2005	1.12	<b>1.78<sup>a</sup></b>	0.36	0.85	0.55	0.11	0.52	1.84	0.48	0.92	0.06	0.10	<b>8.69</b>
2006	0.39	0.05	1.03	0.26	0.09	0.24	1.83	0.77	1.38	1.90	0.06	0.73	<b>8.73</b>
2007	0.62	0.43	1.65	0.39	1.69	0.10	0.68	0.81	0.74	0.11	0.59	0.61	<b>8.42</b>
2008	1.21	0.74	0.14	0.03	0.25	0.13	0.63	0.60	0.21	0.76	0.61	0.96	<b>6.27</b>
2009	0.38	0.44	0.35	0.28	0.78	0.47	0.15	0.27	0.09	0.68	0.32	0.42	<b>4.63</b>
2010	1.34	0.95	0.82	0.26	0.10	0.10	0.65	2.50	0.84	1.32	0.12	0.78	<b>9.78</b>
2011	0.03	0.18	0.34	1.09	0.86	0.01	0.65	0.05	1.02	1.86	0.55	0.30	<b>6.94</b>
2012	0.10	0.40	0.20	0.01	0.08	0.01	1.09	0.13	0.67	0.08	0.24	0.74	<b>3.75</b>
2013	0.83	0.07	0.14	0.49	0.23	0.02	0.52	1.34	<b>3.29<sup>a</sup></b>	0.66	0.91	0.14	<b>8.64</b>
2014	0.22	0.27	0.80	0.13	0.26	0.00	0.54	1.00	1.55	0.15	0.31	0.88	<b>6.11</b>
2015	1.22	1.14	0.10	0.61	1.70	<b>1.80<sup>a</sup></b>	0.96	1.09	0.51	1.10	0.89	0.65	<b>11.77</b>
2016	0.57	0.23	0.01	1.38	0.35	0.08	0.39	1.37	1.05	0.28	1.50	<b>0.97<sup>a</sup></b>	<b>8.18</b>
<b>Mean for Month</b>	<b>0.53</b>	<b>0.49</b>	<b>0.62</b>	<b>0.59</b>	<b>0.52</b>	<b>0.26</b>	<b>0.82</b>	<b>1.05</b>	<b>1.08</b>	<b>0.95</b>	<b>0.66</b>	<b>0.47</b>	<b>8.04</b>

\*Traces of precipitation less than 0.01 inch may have occurred in months showing 0.00 inches.

<sup>a</sup>Highest recorded precipitation for month (or year) in 48-year period.

<sup>b</sup>Lowest recorded precipitation for year in 48-year period.

**Table 25. Total Number of Days in which Measurable Snow Was Recorded (D), Total Depth of Snow (TOT), and Average Depth (AVG) of Snow per Event in each Month at the NMSU Agricultural Science Center at Farmington, NM, 1987–2016**

Year	October			November			December			January			February			March			April		
	D	TOT	AVG	D	TOT	AVG	D	TOT	AVG	D	TOT	AVG	D	TOT	AVG	D	TOT	AVG	D	TOT	AVG
1987	0	-	-	1	2.0	2.0	2	19.0	9.5	0	-	-	5	21.3	4.3	2	3.0	1.5	0	-	-
1988	0	-	-	2	4.0	2.0	5	7.0	1.4	2	4.5	2.3	0	-	-	0	-	-	0	-	-
1989	0	-	-	0	-	-	0	-	-	3	9.5	3.2	4	8.5	2.1	1	2.0	2.0	0	-	-
1990	0	-	-	1	2.0	2.0	5	8.5	1.7	3	8.0	2.7	3	6.0	2.0	1	3.0	3.0	0	-	-
1991	1	2.0	2.0	5	10.0	2.0	3	1.8	0.6	2	3.0	1.5	0	-	-	2	4.5	2.3	0	-	-
1992	0	-	-	0	-	-	5	11.0	2.2	1	1.0	1.0	1	1.0	1.0	0	-	-	0	-	-
1993	0	-	-	0	-	-	0	-	-	0	-	-	2	2.0	1.0	1	0.3	0.3	0	-	-
1994	1	2.0	2.0	3	1.8	0.6	1	0.3	0.3	2	1.5	0.8	4	5.8	1.4	0	-	-	0	-	-
1995	0	-	-	0	-	-	4	1.5	0.4	4	4.0	1.0	0	-	-	0	-	-	0	-	-
1996	0	-	-	1	4.5	4.5	1	1.5	1.5	2	0.3	0.2	3	1.4	0.5	1	0.8	0.8	0	-	-
1997	1	2.0	2.0	0	-	-	2	4.0	2.0	4	8.3	2.1	5	4.8	1.0	0	-	-	0	-	-
1998	0	-	-	1	0.2	0.2	2	0.4	0.2	2	0.8	0.4	0	-	-	1	1.0	1.0	0	-	-
1999	0	-	-	1	0.4	0.4	1	1.0	1.0	0	-	-	0	-	-	1	1.5	1.5	1	2.0	2.0
2000	0	-	-	1	1.0	1.0	1	0.2	0.2	3	2.6	0.9	1	0.2	0.2	0	-	-	0	-	-
2001	0	-	-	0	-	-	3	1.9	0.6	6	5.6	0.9	2	6.8	3.4	1	1.0	1.0	2	1.2	0.6
2002	1	1.0	1.0	0	-	-	1	2.0	2.0	1	0.5	0.5	0	-	-	2	0.4	0.2	0	-	-
2003	0	-	-	1	0.8	0.8	0	-	-	0	-	-	3	3.0	1.0	1	2.0	2.0	0	-	-
2004	0	-	-	0	-	-	5	4.0	0.8	4	4.0	1.0	3	3.5	1.2	0	-	-	0	-	-
2005	0	-	-	0	-	-	1	0.4	0.4	3	2.2	0.7	2	1.0	0.5	1	0.1	0.1	0	-	-
2006	0	-	-	1	0.3	0.3	4	2.6	0.7	2	2.9	1.5	1	0.2	0.2	3	1.8	0.6	0	-	-
2007	0	-	-	1	0.3	0.3	4	1.0	0.3	5	5.4	1.1	1	0.3	0.3	0	-	-	0	-	-
2008	0	-	-	0	-	-	8	8.9	1.1	5	9.3	1.9	2	4.4	2.2	1	1.6	1.6	0	-	-
2009	2	3.4	1.7	1	0.5	0.5	4	3.2	0.8	4	4.0	1.0	2	4.0	2.0	4	0.8	0.2	0	-	-
2010	0	-	-	2	0.4	0.2	3	6.0	2.0	5	3.4	0.7	6	9.3	1.6	3	7.4	2.5	0	-	-
2011	0	-	-	1	0.5	0.5	7	1.8	0.3	1	1.0	1.0	0	-	-	0	-	-	0	-	-
2012	0	-	-	0	-	-	5	4.6	0.9	3	1.5	0.5	6	2.3	0.4	3	1.3	0.4	0	-	-
2013	0	-	-	2	0.7	0.4	3	1.7	0.6	4	1.4	0.4	3	1.1	0.4	0	-	-	0	-	-
2014	0	-	-	0	-	-	1	2.5	2.5	0	-	-	2	2.6	1.3	0	-	-	0	-	-
2015	0	-	-	0	-	-	6	3.0	0.5	2	2.1	1.1	4	2.1	0.5	1	0.6	0.6	1	1.0	1.0
2016	0	-	-	1	0.1	0.1	0	-	-	4	4.5	1.1	2	1.2	0.6	0	-	-	0	-	-
<b>Mean</b>	<b>1.2</b>	<b>2.1</b>	<b>1.7</b>	<b>1.5</b>	<b>1.7</b>	<b>1.0</b>	<b>3.3</b>	<b>3.8</b>	<b>1.3</b>	<b>3.1</b>	<b>3.7</b>	<b>1.2</b>	<b>2.9</b>	<b>4.0</b>	<b>1.3</b>	<b>1.7</b>	<b>1.8</b>	<b>1.2</b>	<b>1.3</b>	<b>1.4</b>	<b>1.2</b>



**Table 26. Total (TOT) and Average Daily (AVG) PAN Evaporation in Inches for each Month from April through October at the NMSU Agricultural Science Center at Farmington, NM, 1972–2016<sup>a</sup>**

Year	April		May		June		July		August		September		October <sup>b</sup>	
	TOT	AVG	TOT	AVG	TOT	AVG	TOT	AVG	TOT	AVG	TOT	AVG	TOT	AVG
1972	-	-	-	-	-	-	14.8	0.48	-	-	9.6	0.32	-	-
1973	-	-	-	-	-	-	11.5	0.37	10.7	0.35	-	-	-	-
1974	-	-	13.0	0.42	15.4	0.51	13.0	0.42	12.2	0.39	9.5	0.32	4.6	0.15
1975	-	-	9.4	0.30	12.1	0.40	12.1	0.39	12.6	0.41	8.0	0.27	7.3	0.24
1976	-	-	11.8	0.38	15.4	0.51	14.0	0.45	13.1	0.42	-	-	5.7	0.19
1977	9.1	0.30	12.1	0.39	15.1	0.50	13.1	0.42	12.2	0.39	9.5	0.32	-	-
1978	-	-	9.6	0.31	12.8	0.43	14.5	0.47	13.1	0.42	-	-	-	-
1979	8.3	0.28	8.6	0.28	-	-	-	-	10.6	0.34	9.5	0.32	-	-
1980	-	-	10.1	0.33	13.6	0.45	14.2	0.46	-	-	8.1	0.27	-	-
1981	7.9	0.26	9.5	0.30	13.1	0.44	-	-	-	-	7.7	0.26	-	-
1982	-	-	-	-	12.9	0.43	12.0	0.39	9.9	0.32	-	-	-	-
1983	-	-	-	-	11.6	0.39	12.2	0.39	11.2	0.36	8.7	0.29	-	-
1984	-	-	12.3	0.40	12.2	0.41	12.4	0.40	10.3	0.33	8.0	0.27	-	-
1985	-	-	9.0	0.29	12.4	0.41	12.6	0.41	11.6	0.37	6.8	0.23	-	-
1986	-	-	9.8	0.32	11.0	0.37	11.6	0.37	10.9	0.35	6.8	0.23	-	-
1987	-	-	-	-	11.5	0.38	-	-	-	-	8.4	0.28	-	-
1988	-	-	11.4	0.37	-	-	12.9	0.42	9.7	0.31	8.7	0.29	5.9	0.20
1989	-	-	12.3	0.40	12.6	0.42	-	-	11.0	0.36	9.3	0.31	-	-
1990	-	-	12.0	0.39	15.6	0.52	12.7	0.41	11.2	0.36	8.7	0.29	-	-
1991	9.1	0.30	11.5	0.37	11.2	0.37	12.7	0.41	11.2	0.36	8.3	0.28	-	-
1992	-	-	8.8	0.28	12.3	0.41	11.4	0.37	10.8	0.35	-	-	6.2	0.21
1993	9.8	0.33	10.6	0.34	14.0	0.47	14.7	0.47	9.9	0.32	9.5	0.32	-	-
1994	8.1	0.27	12.4	0.40	14.6	0.49	15.5	0.50	12.3	0.40	9.6	0.32	-	-
1995	-	-	9.9	0.32	12.6	0.42	14.1	0.45	11.5	0.37	8.5	0.28	7.4	0.25
1996	9.5	0.32	13.4	0.43	12.7	0.42	14.1	0.45	11.1	0.36	-	-	5.4	0.18
1997	7.4	0.25	9.9	0.32	12.0	0.40	12.0	0.39	9.5	0.31	7.9	0.26	5.5	0.18
1998	7.5	0.25	11.5	0.37	14.3	0.48	12.8	0.41	11.3	0.37	9.9	0.33	5.6	0.19
1999	7.9	0.26	10.9	0.35	13.4	0.45	11.5	0.37	9.3	0.30	8.1	0.27	7.2	0.24
2000	10.0	0.33	13.2	0.43	14.0	0.47	13.2	0.43	11.2	0.36	9.0	0.30	4.5	0.15
2001	8.4	0.28	12.2	0.39	14.0	0.47	12.2	0.40	11.1	0.36	10.7	0.36	7.0	0.23
2002	-	-	13.5	0.43	14.8	0.49	14.0	0.45	12.2	0.39	7.7	0.26	4.4	0.15
2003	8.4	0.28	11.8	0.38	14.7	0.49	15.6	0.50	12.3	0.40	9.4	0.31	6.2	0.21
2004	7.4	0.25	12.8	0.41	14.2	0.47	13.7	0.44	11.4	0.37	7.9	0.26	4.8	0.16
2005	8.3	0.28	11.4	0.37	12.6	0.42	15.1	0.49	10.5	0.34	8.1	0.27	4.8	0.16
2006	-	-	12.9	0.42	14.8	0.49	12.5	0.40	10.4	0.34	7.5	0.25	4.8	0.16
2007	8.0	0.27	9.8	0.32	13.5	0.45	12.9	0.42	11.1	0.36	8.7	0.29	6.3	0.21
2008	9.7	0.32	11.1	0.36	13.8	0.46	11.9	0.39	11.3	0.36	8.9	0.30	6.1	0.20
2009	8.4	0.28	-	-	10.2	0.34	13.3	0.43	11.1	0.36	8.1	0.27	-	-
2010	8.4	0.28	11.2	0.36	12.4	0.41	11.9	0.38	9.7	0.31	8.6	0.29	5.3	0.18
2011	8.7	0.29	11.2	0.36	14.4	0.48	13.0	0.42	11.6	0.37	7.7	0.26	-	-
2012	8.9	0.30	12.5	0.40	14.7	0.49	11.3	0.36	11.5	0.37	8.9	0.30	6.9	0.24
2013	11.0	0.37	12.1	0.39	13.7	0.46	12.4	0.40	10.0	0.32	7.9	0.26	5.5	0.18
2014	7.9	0.26	10.5	0.34	13.7	0.46	13.9	0.45	10.1	0.33	7.9	0.26	5.6	0.19
2015	8.1	0.27	8.4	0.27	10.6	0.35	10.4	0.33	11.6	0.38	8.3	0.28	5.0	0.17
2016	7.7	0.26	10.6	0.34	14.6	0.49	13.3	0.43	9.3	0.30	7.6	0.25	6.0	0.20
<b>Mean</b>	<b>8.6</b>	<b>0.29</b>	<b>11.1</b>	<b>0.36</b>	<b>13.3</b>	<b>0.44</b>	<b>13.0</b>	<b>0.42</b>	<b>11.1</b>	<b>0.36</b>	<b>8.5</b>	<b>0.28</b>	<b>5.8</b>	<b>0.19</b>

<sup>a</sup>Data are shown only for months in which PAN evaporation measurements were taken every day of the month, except for October.

<sup>b</sup>Values shown for October represent totals and means from the 1st to the 30th only.

**Table 27. Average Daily (24-hour) Wind Run (miles/day) Measured at a Height of 6 Feet during each Month at the NMSU Agricultural Science Center at Farmington, NM, 1980–2016**

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Mean
1980	-	-	-	-	135	132	114	97	81	77	88	83	-
1981	111	79	144	121	115	81	64	85	74	82	76	54	<b>90</b>
1982	93	63	107	115	99	129	99	91	102	91	87	95	<b>98</b>
1983	115	138	154	146	143	120	115	105	113	111	132	134	<b>127</b>
1984	63	115	95	133	90	97	50	50	46	64	139	114	<b>88</b>
1985	91	127	185	156	142	136	135	134	126	126	73	118	<b>129</b>
1986	116	130	145	179	155	138	129	132	129	124	122	96	<b>133</b>
1987	139	133	140	159	137	127	120	120	130	114	116	77	<b>126</b>
1988	125	123	158	154	164	138	132	132	121	82	98	102	<b>128</b>
1989	93	135	151	148	130	124	128	118	123	115	110	107	<b>124</b>
1990	125	153	146	172	164	156	141	134	128	134	126	129	<b>142</b>
1991	103	123	191	192	167	134	140	121	129	114	106	88	<b>134</b>
1992	113	122	136	140	136	137	116	118	110	113	109	112	<b>122</b>
1993	160	140	155	174	136	86	56	82	102	85	94	-	-
1994	132	155	143	165	137	128	135	127	119	119	144	116	<b>135</b>
1995	140	125	149	168	174	137	129	116	113	136	130	102	<b>135</b>
1996	167	148	161	184	146	141	127	119	111	135	121	144	<b>142</b>
1997	107	151	146	153	135	114	110	103	104	117	121	105	<b>122</b>
1998	102	137	143	140	111	121	111	109	102	131	113	107	<b>119</b>
1999	140	145	148	187	190	92	84	100	106	98	95	126	<b>126</b>
2000	131	143	149	162	139	135	107	103	110	108	115	108	<b>126</b>
2001	116	126	175	146	140	129	105	109	119	126	112	125	<b>127</b>
2002	123	141	163	135	123	115	115	97	107	91	110	110	<b>119</b>
2003	98	131	144	140	134	127	105	108	113	103	115	130	<b>121</b>
2004	94	119	134	133	123	112	111	100	99	102	119	89	<b>111</b>
2005	93	113	147	153	117	113	111	94	98	99	119	114	<b>114</b>
2006	129	140	140	145	122	128	104	96	103	103	123	107	<b>120</b>
2007	94	135	120	147	120	129	109	89	95	116	106	128	<b>116</b>
2008	106	124	144	170	136	127	103	95	93	109	127	126	<b>122</b>
2009	100	120	145	155	109	97	97	86	99	101	87	112	<b>109</b>
2010	72	104	129	155	123	92	92	78	80	89	110	88	<b>101</b>
2011	80	112	134	157	123	108	80	79	78	84	104	74	<b>101</b>
2012	97	110	110	116	99	88	73	77	73	89	79	95	<b>92</b>
2013	81	110	110	139	98	70	80	70	76	90	82	83	<b>91</b>
2014	98	83	83	118	78	76	79	61	51	60	71	66	<b>77</b>
2015	58	66	66	91	69	55	60	57	38	50	67	55	<b>61</b>
2016	44	72	72	88	70	62	63	58	45	63	62	53	<b>63</b>
<b>Mean</b>	<b>107</b>	<b>122</b>	<b>138</b>	<b>148</b>	<b>128</b>	<b>114</b>	<b>104</b>	<b>99</b>	<b>99</b>	<b>101</b>	<b>106</b>	<b>102</b>	<b>114</b>

**Table 28. Average Daily Solar Radiation in Langleys/Day (gram calories per square centimeter per day) as Measured with Pyranometers for each Month at the NMSU Agricultural Science Center at Farmington, NM, 1977–2016**

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Mean
1977	205	306	386	552	438	530	501	464	396	360	332	-	-
1978	157	295	334	459	490	586	636	491	400	292	185	167	374
1979	166	260	302	423	445	527	489	477	459	267	190	155	347
1980	135	225	300	489	557	646	610	507	436	342	274	145	389
1981	190	296	289	519	554	643	589	520	422	314	243	200	398
1982	129	215	369	536	596	707	651	565	470	393	227	210	422
1983	188	295	345	478	-	-	-	-	-	339	229	177	-
1984	247	345	418	533	662	664	639	573	484	280	234	188	439
1985	204	303	359	475	561	648	590	561	413	335	228	214	408
1986	237	300	410	468	586	573	549	509	352	313	215	205	393
1987	222	281	458	548	540	635	618	443	468	346	228	182	414
1988	220	305	474	496	626	623	621	555	486	486	255	216	447
1989	224	280	419	544	628	633	557	570	498	361	277	219	434
1990	221	282	339	479	593	662	620	529	463	361	234	203	415
1991	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	189	259	355	510	531	609	548	501	451	323	238	167	390
1993	174	252	403	546	579	637	689	501	516	371	264	225	430
1994	241	288	398	481	558	648	623	538	430	261	192	154	401
1995	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	245	317	464	579	653	610	678	612	448	362	259	221	454
1997	242	306	535	514	614	658	641	568	492	390	268	221	454
1998	237	261	444	564	663	726	606	566	507	215	267	244	442
1999	263	363	459	528	625	703	623	516	503	439	319	241	465
2000	247	306	399	582	692	694	636	603	478	326	257	214	453
2001	241	323	408	584	652	604	616	581	542	397	287	242	456
2002	251	383	492	593	707	741	661	598	477	366	289	231	482
2003	255	315	452	596	640	719	692	604	510	394	200	191	464
2004	186	264	418	451	656	703	646	583	468	346	214	207	428
2005	206	272	402	526	624	639	664	539	442	347	277	239	431
2006	258	362	375	539	644	616	533	472	426	308	249	196	415
2007	228	284	397	539	562	676	535	455	407	406	310	220	418
2008	287	341	497	617	673	729	641	587	503	396	286	230	482
2009	262	352	431	541	608	589	637	581	473	358	276	206	443
2010	232	293	451	553	677	695	624	547	501	374	286	174	451
2011	272	359	465	562	668	712	651	570	465	374	260	209	464
2012	261	333	457	544	656	706	601	551	490	415	302	225	462
2013	225	360	468	571	636	688	599	530	463	372	260	225	450
2014	273	325	411	525	614	698	669	557	474	376	260	204	449
2015	218	326	474	572	-	428	562	561	472	342	284	206	404
2016	240	352	458	524	292	761	654	542	-	304	258	211	418
<b>Mean</b>	<b>223</b>	<b>305</b>	<b>414</b>	<b>530</b>	<b>597</b>	<b>650</b>	<b>614</b>	<b>541</b>	<b>463</b>	<b>351</b>	<b>256</b>	<b>205</b>	<b>429</b>

**Table 29. Coefficients of Polynomial Regression Equations (EQ) Shown in Figures of this Report Describing the Relationships of Various Parameters with Day of Year (x) in the Form:  $Y = a + b_1x^1 + b_2x^2 + b_3x^3 + b_4x^4 + b_5x^5 + b_6x^6$**

EQ	Parameter (Y)	Coefficients							r <sup>2</sup>
		a	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	b <sub>5</sub>	b <sub>6</sub>	
1	Daily high (°F)	35.87	0.42	-5.73 E-3	7.63 E-5	-3.95 E-7	8.11 E-10	5.63 E-13	0.994
2	Daily low (°F)	13.77	0.50	-1.03 E-2	1.20 E-4	-5.75 E-7	1.16 E-9	-8.13 E-13	0.993
3	Wind (NWS) (MPD)	104.98	-0.44	3.71 E-2	-4.79 E-4	2.44 E-6	-5.53 E-9	4.66 E-12	0.802
4	Wind (NMCC) (MPD)	130.47	-1.26	6.39 E-2	-7.39 E-4	3.55 E-6	-7.74 E-9	6.34 E-12	0.841
5	Solar radiation (Ly/day)	212.46	-0.39	7.17 E-2	-4.73 E-4	1.00 E-6	6.55 E-10	n.s.	0.988
6	PAN (NWS) (in./day)	-0.31	7.89 E-3	-2.15 E-5	n.s.	n.s.	n.s.	n.s.	0.846
7	PAN (NMCC) (in./day)	-0.37	9.15 E-3	-3.41 E-5	3.00 E-8	n.s.	n.s.	n.s.	0.899
8	Soil temp (NWS) (°F)	27.79	0.14	2.88 E-4	2.18 E-5	-1.40 E-7	2.05 E-10	n.s.	0.996
9	Soil temp (NMCC) (°F)	34.46	-0.04	1.79 E-3	5.58 E-6	-6.81 E-8	1.10 E-10	n.s.	0.987
10	GDD (alfalfa)	-158.32	15.47	-0.34	3.33 E-3	-1.02 E-5	9.82 E-9	n.s.	1.000
11	GDD (corn)	-95.36	10.15	-0.26	2.54 E-3	-7.74 E-6	7.53 E-9	n.s.	1.000
12	ETrs (in./day)	6.29 E-2	2.76 E-4	1.69 E-5	1.57 E-7	-2.10 E-9	6.62 E-12	-6.57 E-15	0.986
13	ETos (in./day)	3.85 E-2	6.62 E-4	-2.65 E-6	2.78 E-7	-2.30 E-9	6.41 E-12	-5.99 E-15	0.991
14	Annual Tmax (°F)	-9.96	3.84 E-2	n.s. <sup>a</sup>	n.s.	n.s.	n.s.	n.s.	0.142
15	Annual Tmean (°F)	-23.41	3.82 E-2	n.s.	n.s.	n.s.	n.s.	n.s.	0.226
16	Annual Tmin (°F)	-37.71	3.85 E-2	n.s.	n.s.	n.s.	n.s.	n.s.	0.230

<sup>a</sup>n.s. = not significant

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