

The background features a light purple to blue gradient. In the upper left, there are several water droplets of various sizes. A large, faint, circular shape resembling a sun or moon is centered in the upper half. The lower half contains more water droplets, including a large one on the right side.

KANSAS WEATHER

CLIMATE CHANGE AND STORM WATER
MANAGEMENT

FLOODS



1951 (USGS)



Manhattan 2018



1993 (USGS)

DROUGHT, IN THE PAST?



1935



2005

WEATHER: 1856 TO NOW



Figure 1. Kansas State Agricultural College (earlier Bluemont Central College) circa 1867. View is looking northwest, building is facing College Street.



Figure 11. The Manhattan, Kansas observing site on the campus of Kansas State University as of June 2004. View looking northwest, the buildings in the background are in the Veterinary Medical Complex.

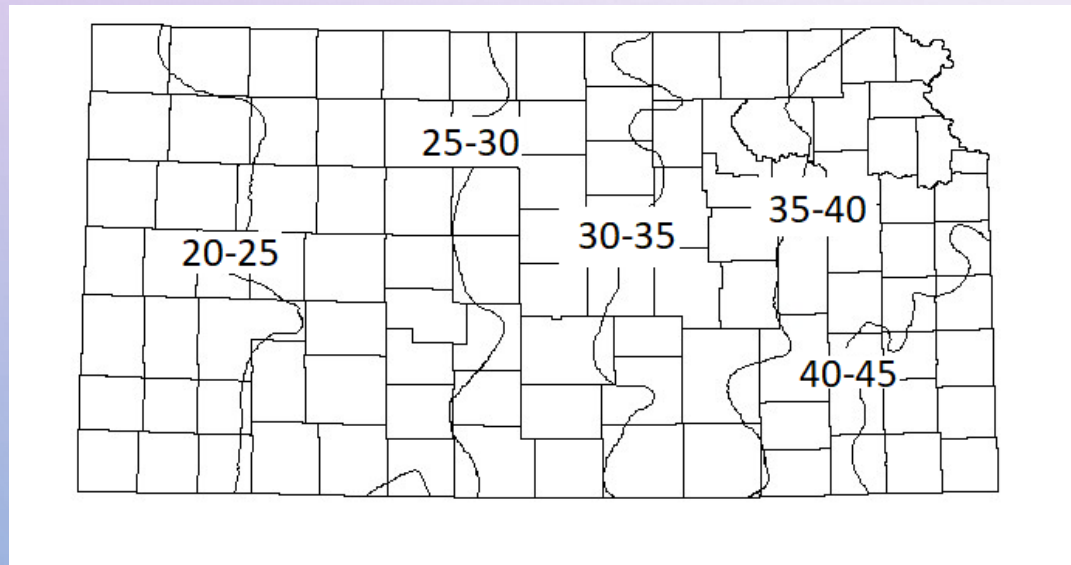


Figure 6. An aerial view of the campus of Kansas State College, Manhattan, Kansas, in 1944. The arrow indicates the approximate location of the weather instruments.

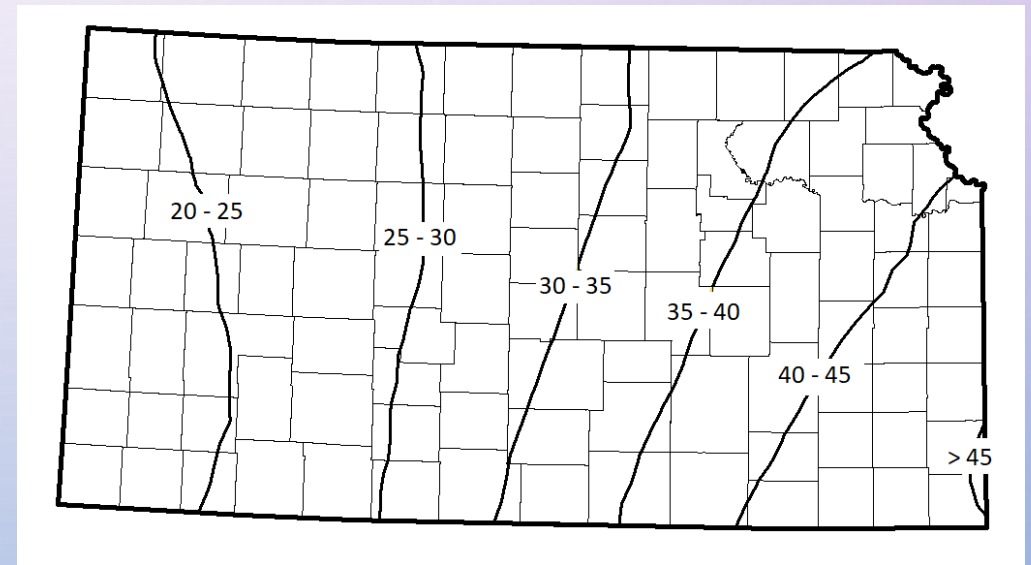
REVIEW TERMINOLOGY

- “NORMALS”
 - 30 YEAR AVERAGES UPDATED EVERY 10 YEARS
- MANY COMPARISONS USE 1961-1990
- PREVIOUS “NORMALS” USE 1971-2000
- NEW “NORMALS” USE 1981-2010

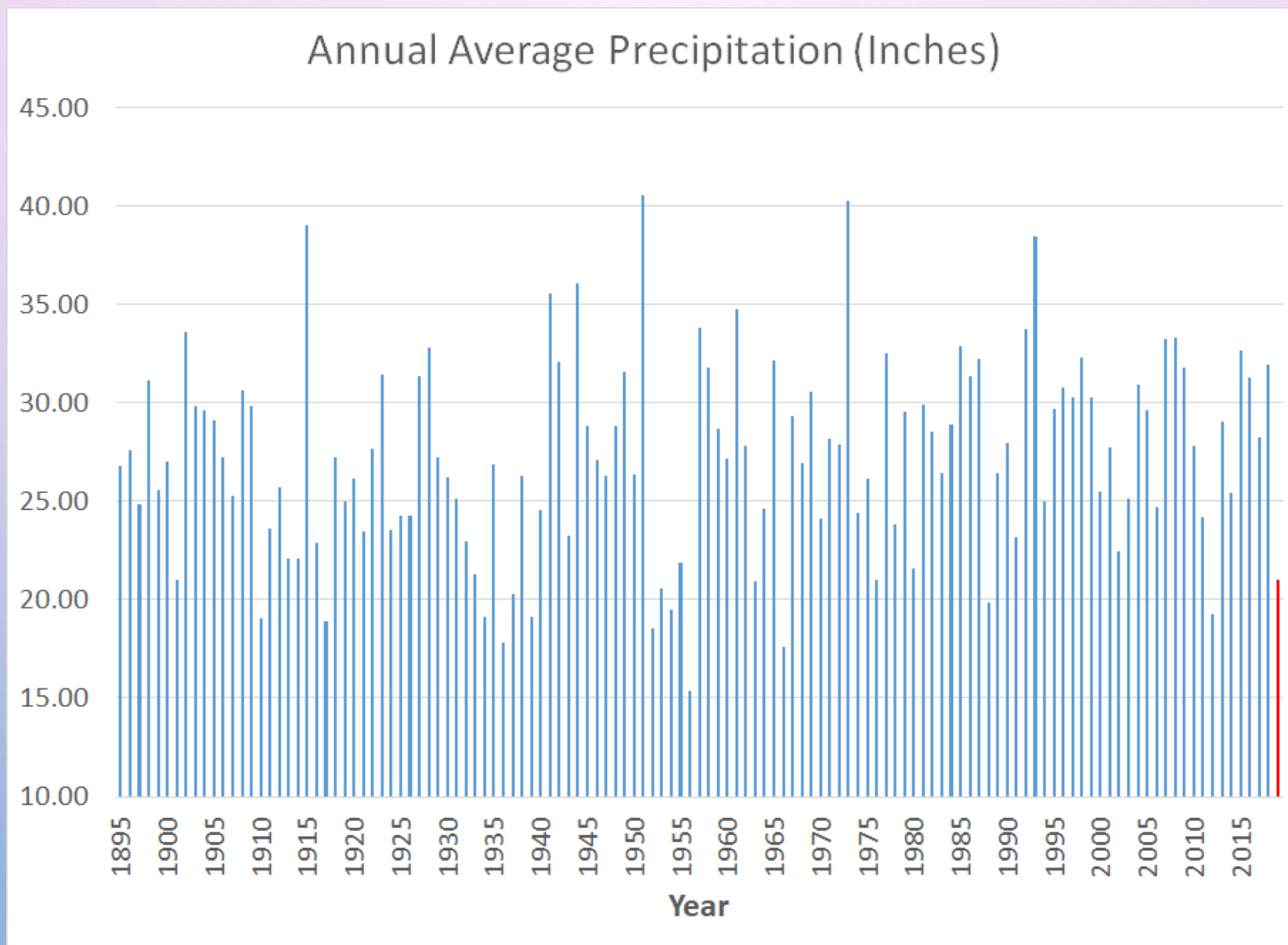
KANSAS ANNUAL RAINFALL PATTERNS



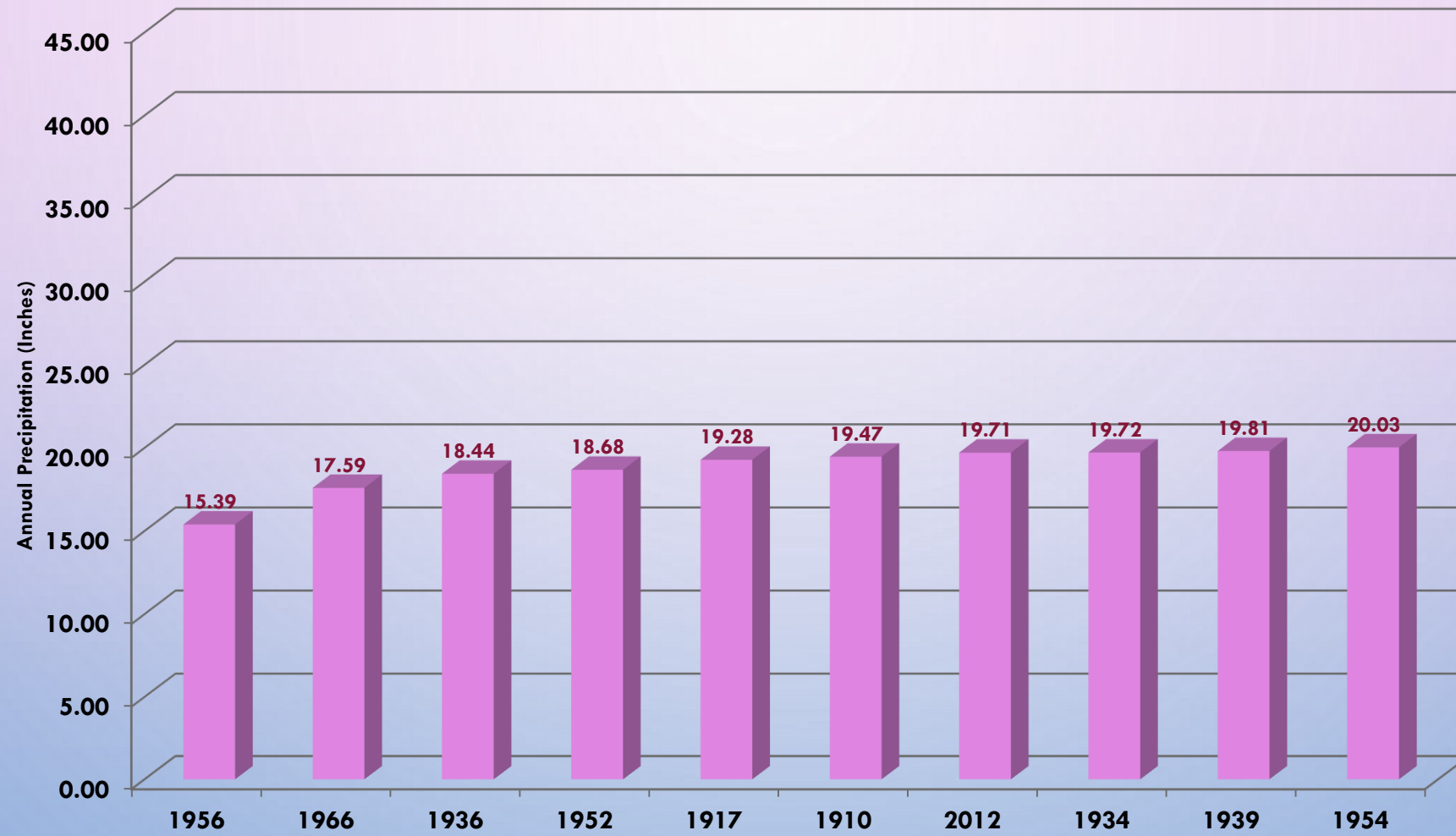
1971-2000



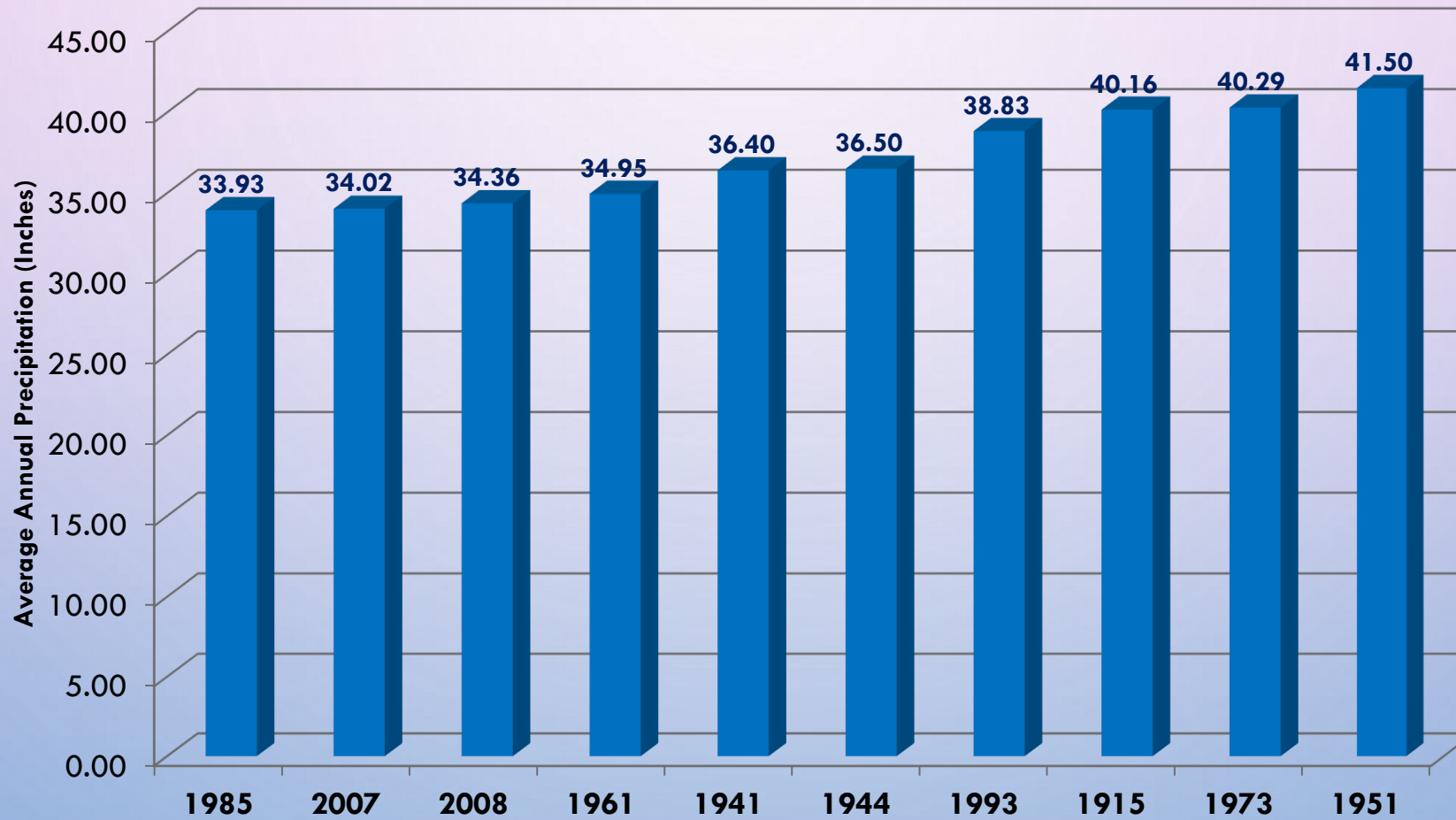
1981-2010



Lowest Statewide Average Annual Precipitation

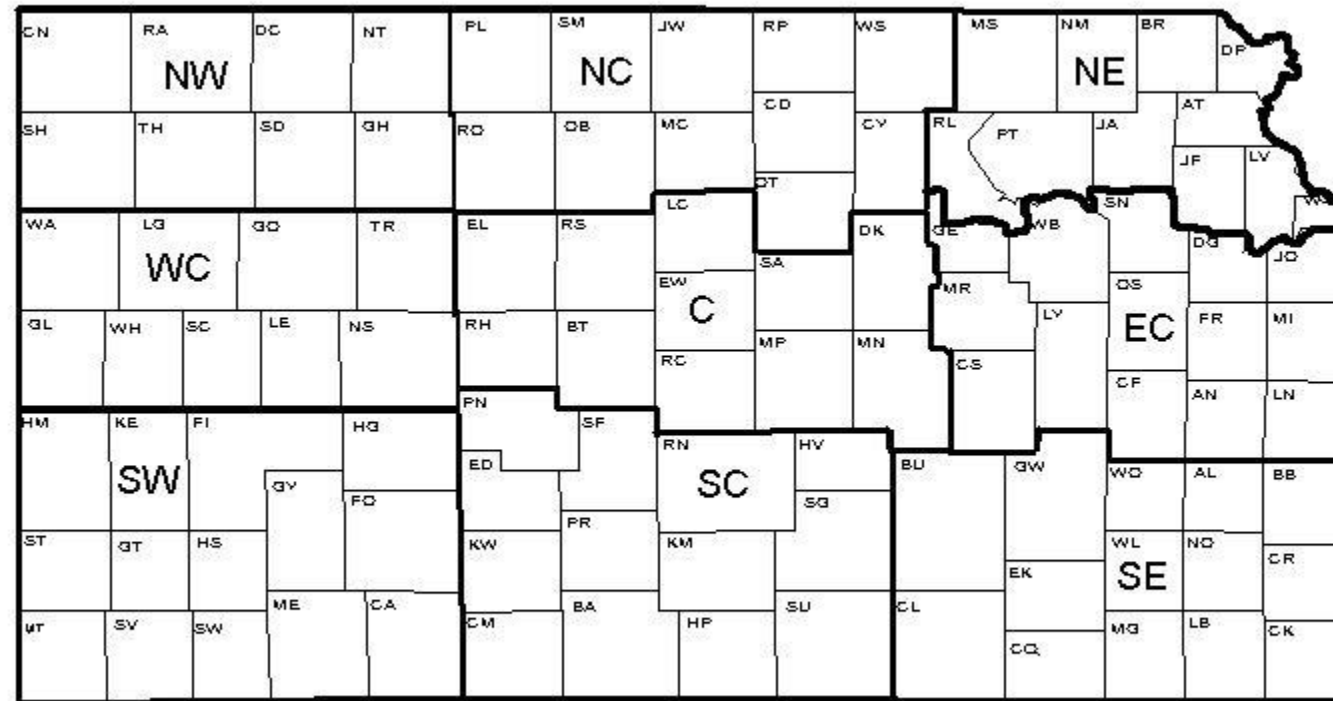


Greatest Statewide Average Annual Precipitation



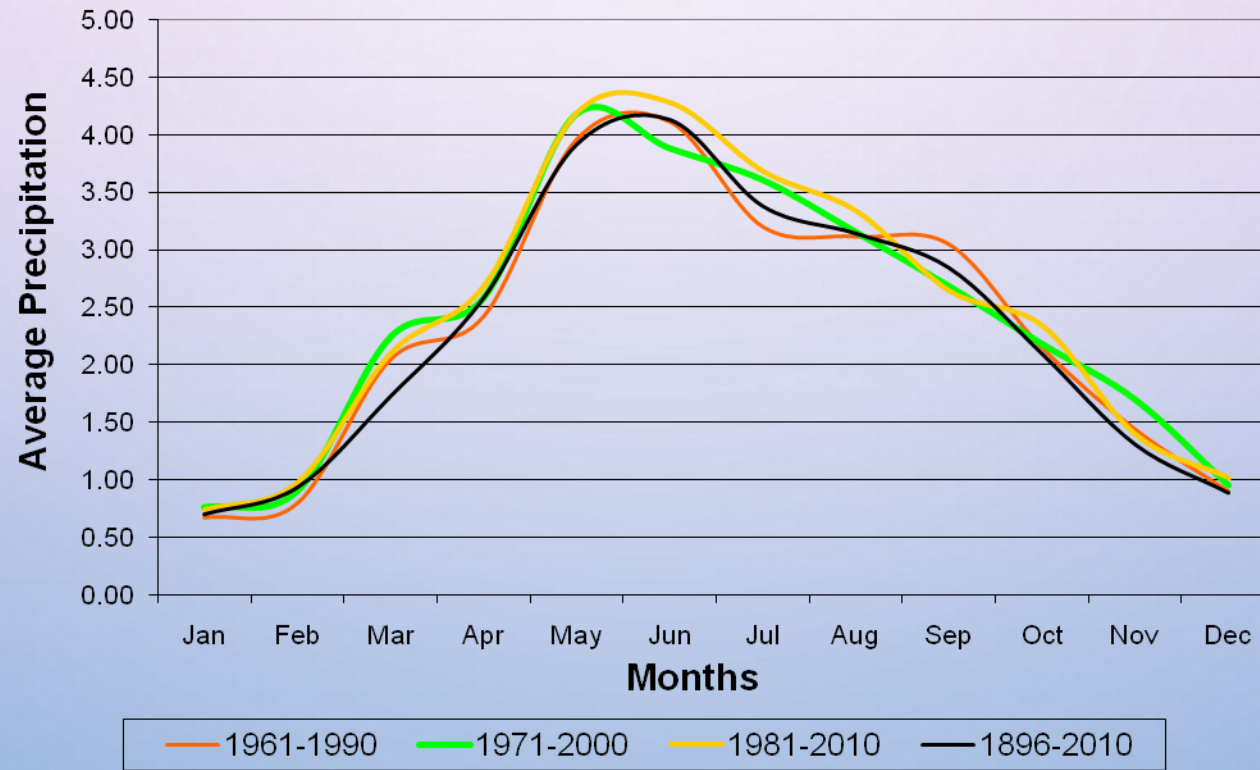
DIVISIONS

Kansas Divisions

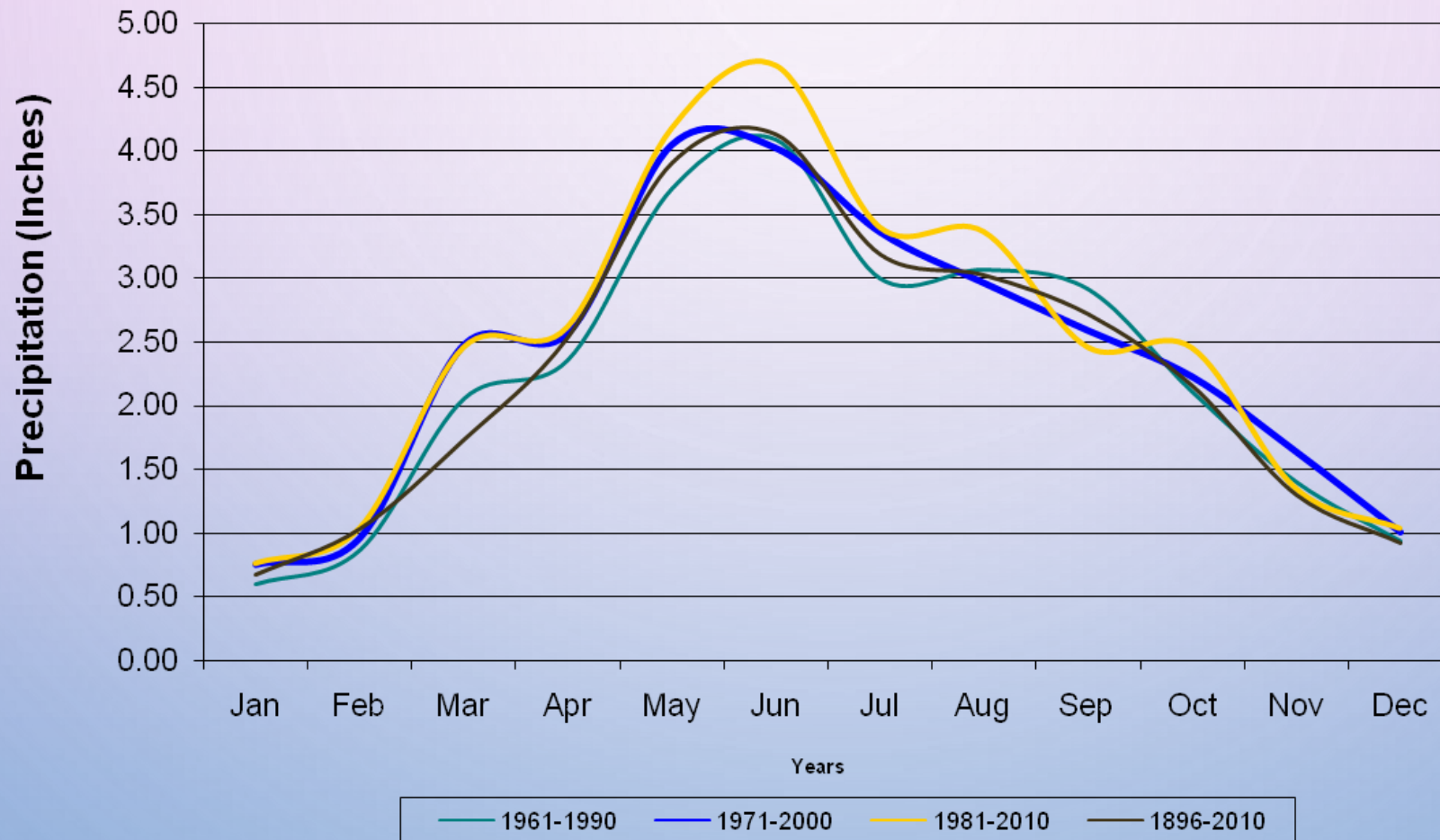


RECENT RAINFALL PATTERNS

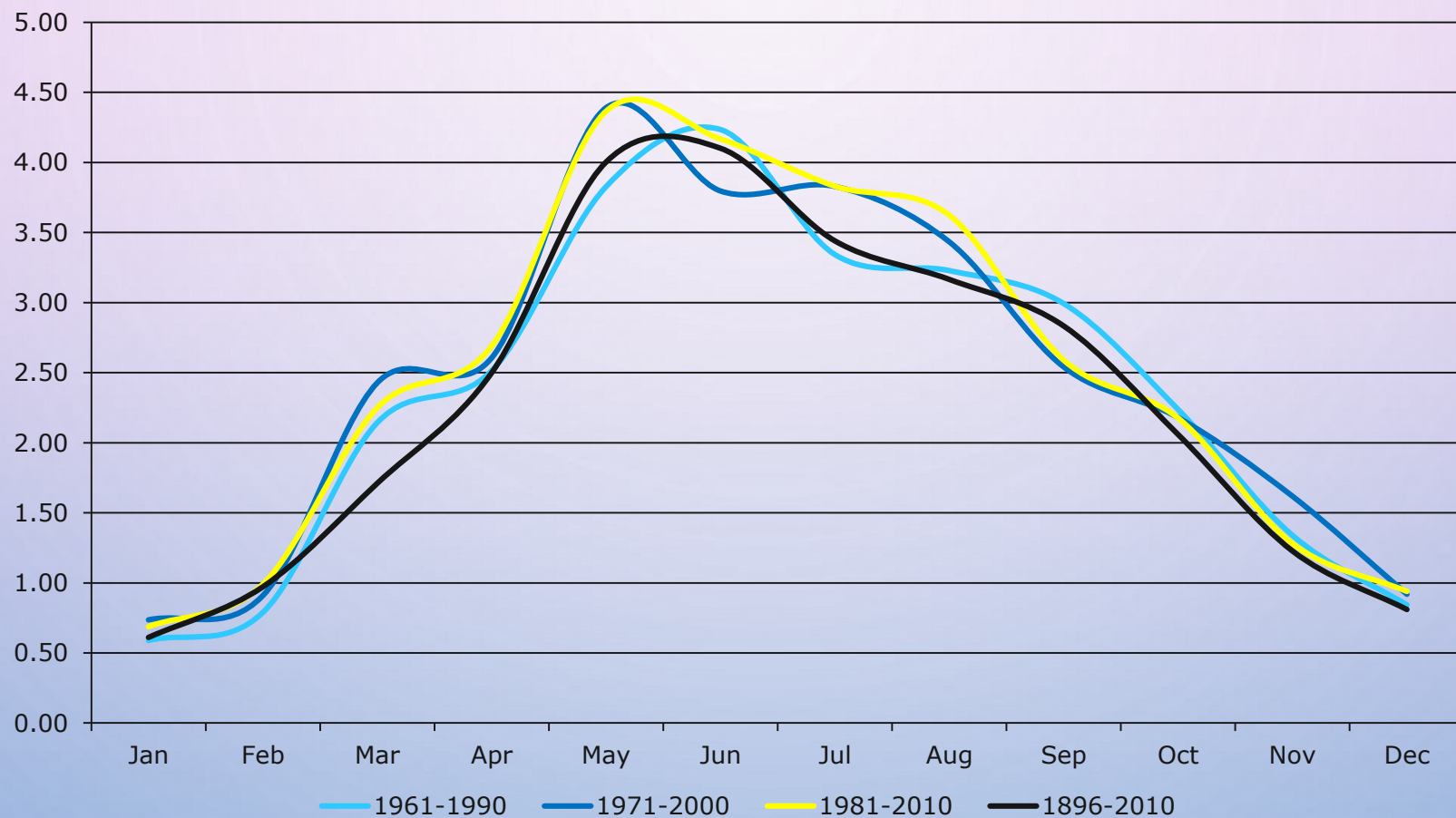
Kansas 30 Year Rainfall Pattern



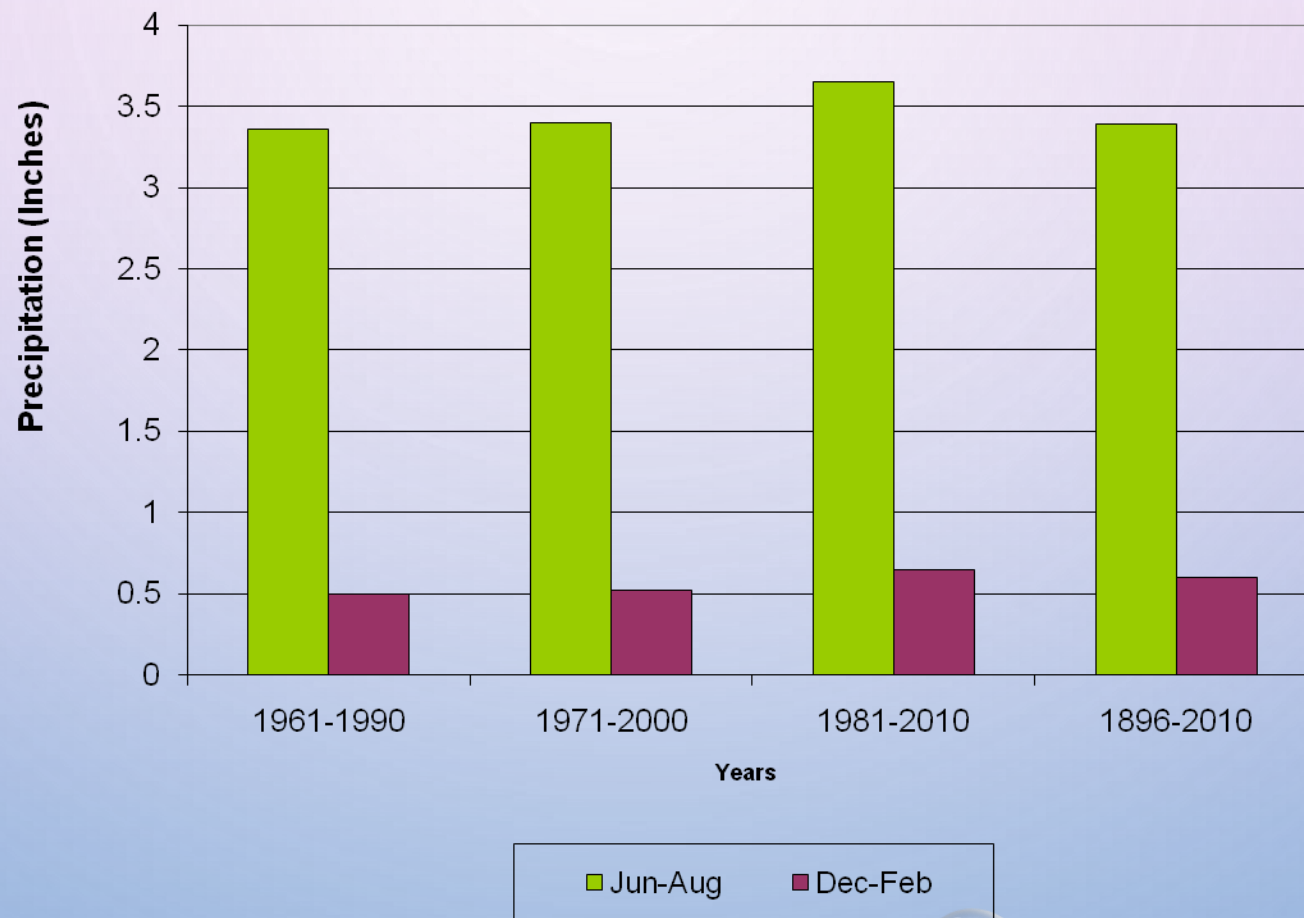
SOUTH CENTRAL KS



CENTRAL KANSAS



SUMMER VS WINTER IN SOUTH CENTRAL KS



EXTREME PRECIPITATION

Maximum 1-Day Total Precipitation for TOPEKA ASOS, KS

Click column heading to sort ascending, click again to sort descending.

Rank	Value	Ending Date
1	5.61	2005-09-23
2	5.10	2007-05-06
3	4.66	1964-11-15
4	4.48	1949-08-18
5	4.38	2015-09-10
6	4.35	1989-09-08
7	4.22	1946-08-12
8	4.15	1984-06-21
9	3.88	1977-08-31
10	3.83	2017-08-21

Period of record: 1946-08-01 to 2019-02-11

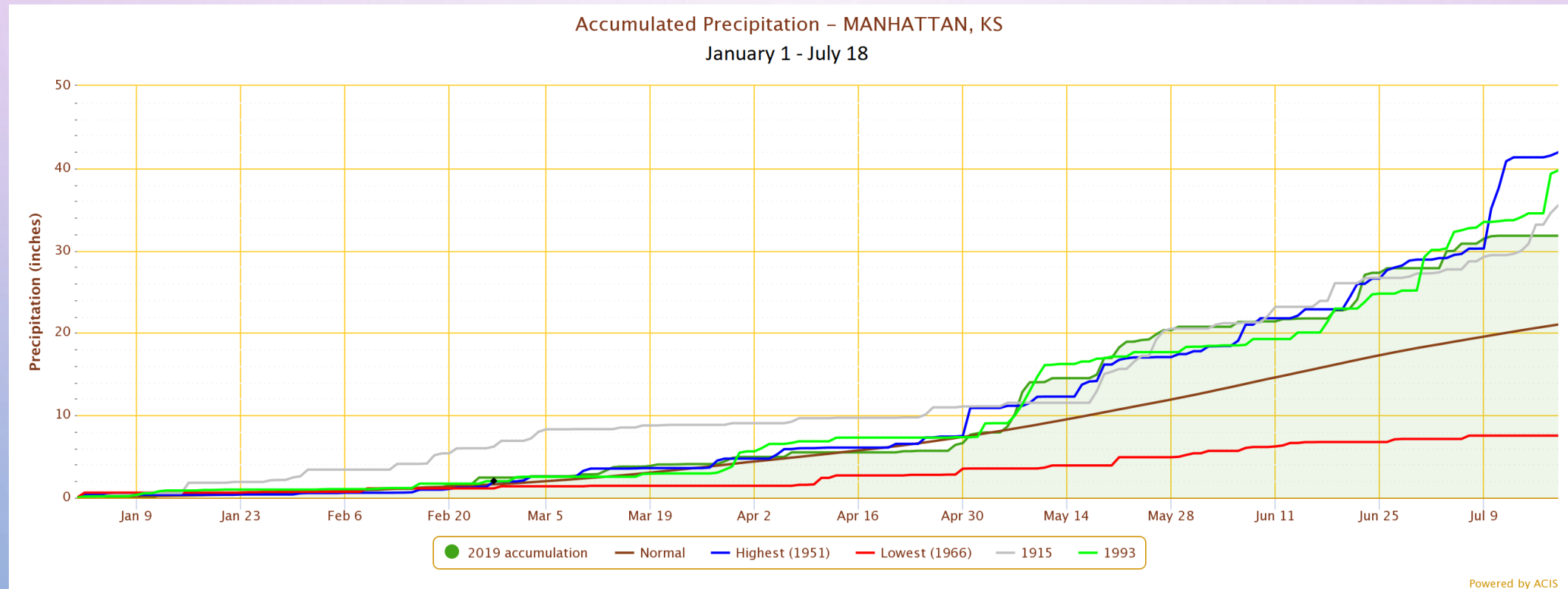
Maximum 1-Day Total Precipitation for MANHATTAN, KS

Click column heading to sort ascending, click again to sort descending.

Rank	Value	Ending Date
1	6.28	1977-06-18
2	6.00	1946-08-13
3	5.98	1895-08-20
4	5.86	1944-08-26
5	5.69	1973-10-11
6	5.60	1895-07-05
7	5.25	1924-08-22
8	5.18	1962-05-29
9	5.05	1989-10-27
10	5.00	1903-05-28

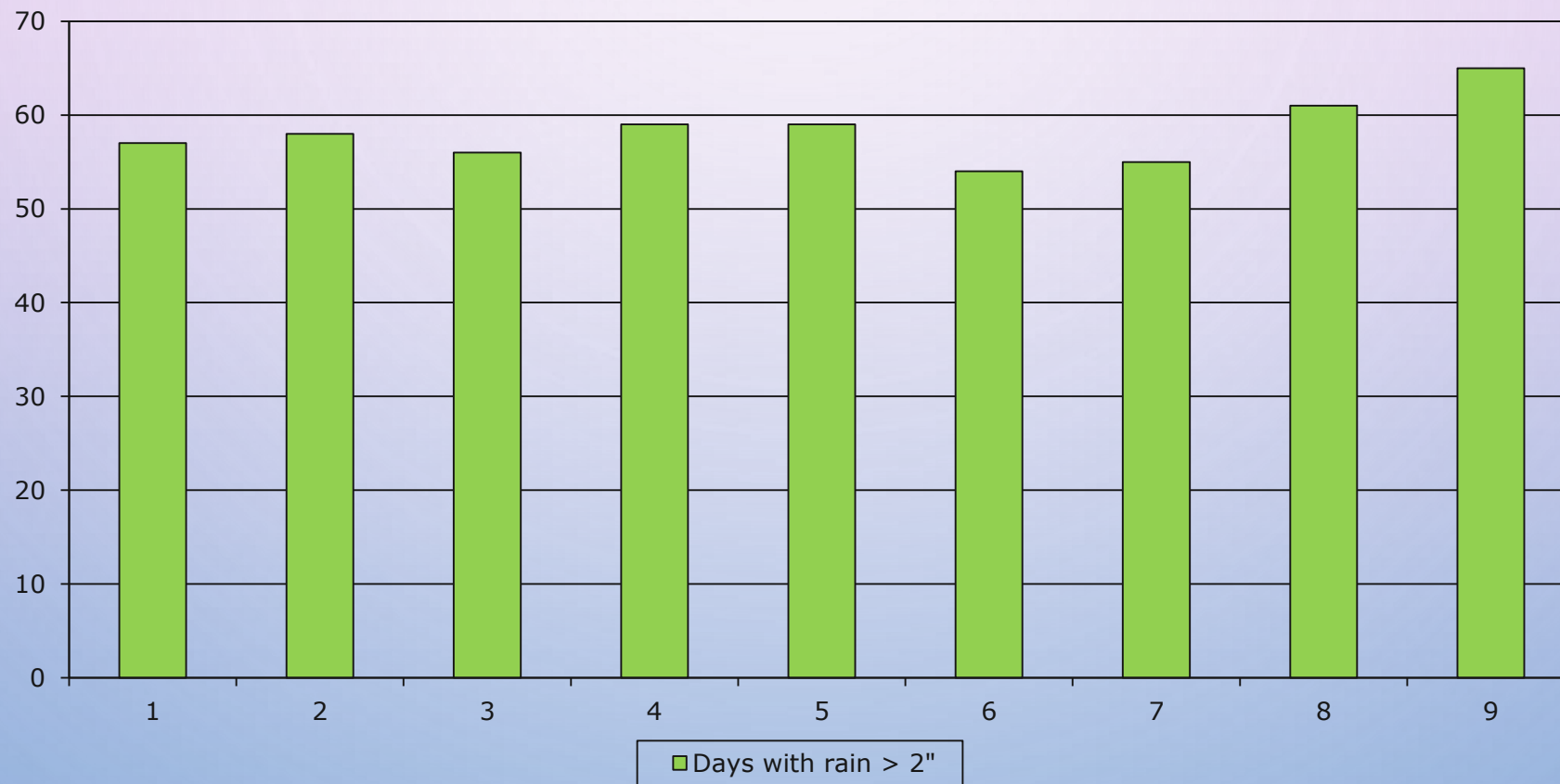
Period of record: 1893-01-12 to 2019-02-12

RAINFALL IN MANHATTAN



MANHATTAN, KS

Days with rain > 2"



FLOODS

[illegible]

FLOODS

Event Narrative	Water two feet deep running over Reservation Dr. near Keats with some home affected and county roads closed. K-114 near Ogden has water flowing across all four lanes. The town of Ogden had substantial flooding with over 30 structures damaged and a number of families evacuated. Wildcat Creek in out of it's banks in Manhattan with floating metal trash dumpsters noted. Some apartments near the creek are being evacuated. Mobile homes near the creek also are flooded. At least 93 residences in Manhattan were affected.		
Rain Totals	Network	Amount	Missing
MANHATTAN 1.9 NW	CoCoRaHS	7.34	1
FORT RILEY MULTIPLE PURPOSE RANGE	WBAN	6.89	0
RANDOLPH 4 WNW	COOP	6.69	0
TUTTLE CREEK LAKE	COOP	6.06	0
PARALLEL	COOP	5.90	0
MANHATTAN 2.4 WNW	CoCoRaHS	5.85	2
MANHATTAN	COOP	5.63	0
MANHATTAN 1.4 SW	CoCoRaHS	5.47	0
MANHATTAN 0.7 S	CoCoRaHS	5.46	1
MANHATTAN 2.0 SSW	CoCoRaHS	5.16	1
MANHATTAN ASOS	WBAN	4.67	0
MANHATTAN 6 SSW	WBAN	4.08	0
Number of reporting stations		12	5.77

FLOODS

Station	Network	Total	Missing	
MANHATTAN 9.8 NW	CoCoRaHS	11.46	1	
MANHATTAN 3.7 N	CoCoRaHS	9.55	0	
MANHATTAN 5.1 NNW	CoCoRaHS	8.14	0	
MANHATTAN 1.4 NNW	CoCoRaHS	6.15	1	
MANHATTAN 1.9 NW	CoCoRaHS	5.80	0	
MANHATTAN 2.7 NW	CoCoRaHS	5.58	1	
MANHATTAN 1.4 SW	CoCoRaHS	5.20	1	
MANHATTAN	COOP	5.09	0	
MANHATTAN 2.4 WNW	CoCoRaHS	5.01	0	
MANHATTAN 1.7 SW	CoCoRaHS	4.80	1	
MANHATTAN 2.4 WNW	CoCoRaHS	4.36	0	
MANHATTAN 6 SSW	WBAN	3.86	0	
MANHATTAN 2.4 SW	CoCoRaHS	3.16	1	
RANDOLPH 4 WNW	COOP	0.84	2	
MANHATTAN ASOS	WBAN	0.00	2	
TUTTLE CREEK LAKE	COOP	0.00	2	
		16		
		5.64		
8/30 - 9/5 at north farm:				
Tipping bucket #1 - 6.74"				
Tipping bucket #2 - 6.88"				
Manhattan siphon gauge - 7.34"				
Weighing gauge - 7.53"				

RESOURCES

- KANSAS MESONET
 - MESONET.KSU.EDU
- STATE CLIMATE OFFICE OF KANSAS
 - CLIMATE.KSU.EDU
- COCORAHS
 - COCORAHS.ORG

KANSAS STATE UNIVERSITY



Kansas Mesonet

[Click here for windchill maps!](#)



Garden City

Station Metadata

Temperature 36 °F
Wind Chill 34 °F
Dewpoint 20 °F
Humidity 54%
24-hr Precip 0 inches
Wind WSW at 3 mph
SLP 1035.9 mb
Last Observed 10:55 AM CST

Today



High 50 °F
Sunny

Tonight



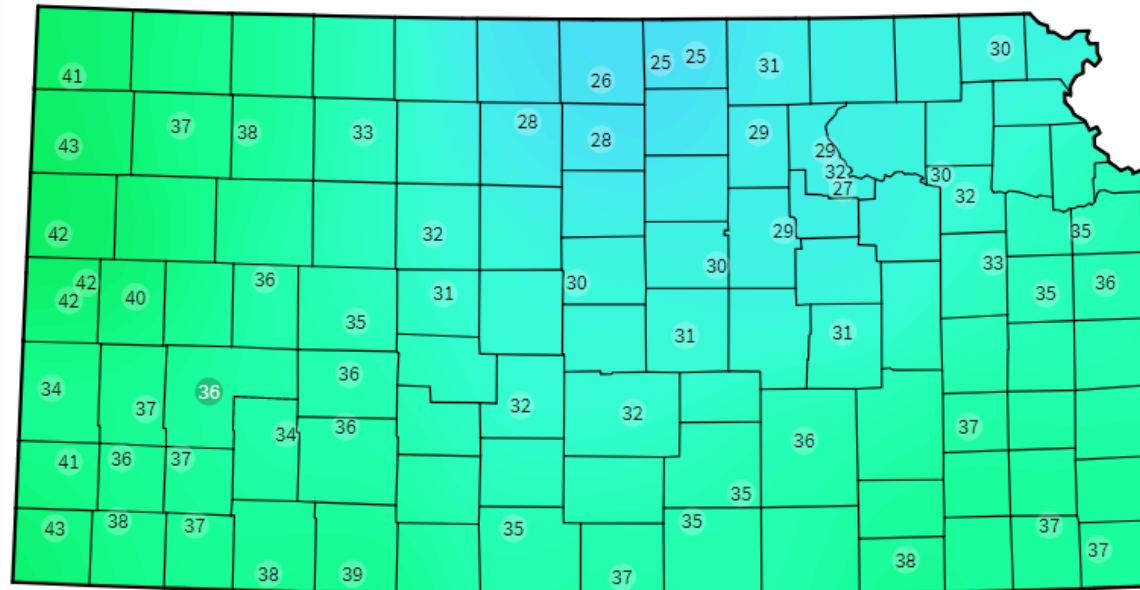
Low 24 °F
Clear

forecast provided by NOAA

Temperature

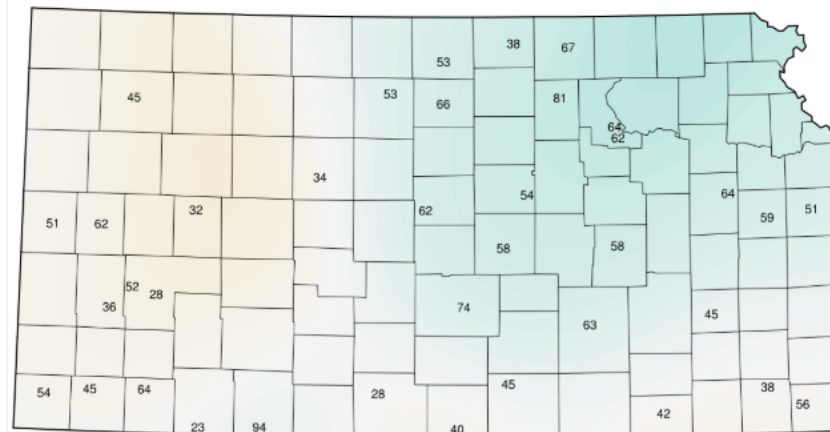
24-hr Precip

Wind



KANSAS STATE UNIVERSITY

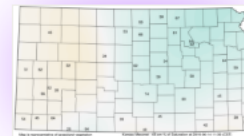
Kansas Climate



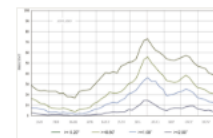
Map is representative of grassland vegetation

Kansas Mesonet - 05 cm % of Saturation at 2019-06-14 11:39 (CST)

Soil Moisture page Check out the Soil Moisture page for the 2019 growing season. As soil moisture changes during the season, this will aid tracking for irrigation decisions, etc.



County-wide
precipitation
data now
available!



News

- [About the Ag-Climate Update](#) February 8
- [May Ag Climate Update](#) June 10
- [May 2019: The wettest month ever](#) June 10

Agriculture

- [Growing Degree Days](#)
- [Soil Temperatures](#)
- [Average Last Spring Freeze](#)

Featured

- [Kansas Drought](#)
- [Monthly Precipitation by Counties](#)
- [Kansas Mesonet](#)



flood1951_NQA.jpg



tuttle_creek_93_03....jpg



CoCoRaHS



COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

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Select Language

Welcome to CoCoRaHS! "Volunteers working together to measure precipitation across the nations."

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- Home
- About Us
- Join CoCoRaHS
- Contact Us
- Donate

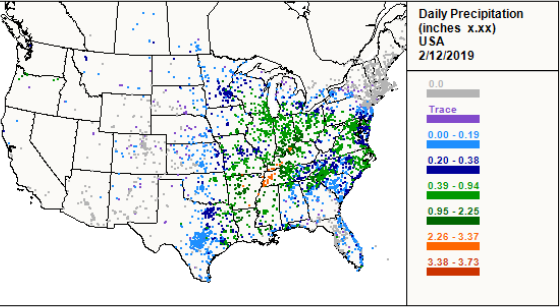
Resources

- FAQ / Help
- Education
- Training Slide-Shows
- Videos
- Condition Monitoring
- Evapotranspiration
- Soil Moisture
- Volunteer Coordinators
- Hail Pad
- Distribution/Drop-off
- Help Needed
- Printable Forms
- The Catch
- Message of the Day
- Publications
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- State Newsletters
- Master Gardener Guide
- State Climate Series
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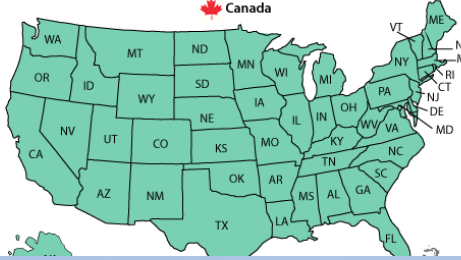
Who uses CoCoRaHS Observations?

Reports received today 2/12/2019 as of 9:05 AM EST

Daily	Multi-day	SigWx	Hail	Condition	ET
4,877	76	9	0	6	2



Daily Precipitation (inches x.xx)
USA
2/12/2019



Canada

JOIN CoCoRaHS

TRAINING SLIDE-SHOWS

Things to know about...

- Rain
- Hail
- Snow

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CoCoRaHS WxTalk Webinar Series

Purchase an official CoCoRaHS 4" Rain Gauge
"The official CoCoRaHS"

AMBASSADOR™
WxTalk
WEATHER-READY NATION

ADDITIONAL SITES TO REMEMBER

- CLIMATE PREDICTION CENTER FORECASTS
 - [HTTP://WWW.CPC.NCEP.NOAA.GOV/PRODUCTS/FORECASTS/](http://www.cpc.ncep.noaa.gov/products/forecasts/)
- CLIMATE PREDICTION CENTER ENSO UPDATES
 - [HTTP://WWW.CPC.NCEP.NOAA.GOV/PRODUCTS/ANALYSIS MONITORING/ENSO ADVISORY/](http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/ensو_advisory/)
- USDA JOINT AGRICULTURAL WEATHER
 - [HTTP://WWW.USDA.GOV/OCE/WEATHER/INDEX.HTM](http://www.usda.gov/oce/weather/index.htm)
- NATIONAL WEATHER SERVICE
 - [HTTP://WEATHER.GOV](http://weather.gov)

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Kansas State University
Manhattan, KS 66506

PH: 785 532-7019

E-mail: Mknapp@ksu.edu

URL: <http://www.ksre.ksu.edu/wdl/>