



Accessing the Weather Databases of the NMSU Corona Ranch

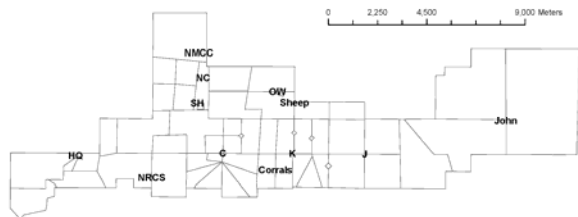
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Introduction

- As a research ranch the Corona Range and Livestock Research Center has a need for detailed and accurate weather data as researchers attempt to quantify the effect of weather and the environment on production systems. Adjacent ranches also need timely weather data for planning and stocking rate decisions.

What weather data are available?

- Databases and spreadsheets are available with links from the Corona Ranch website that summarize all of the various historical weather data that is available for the ranch. Data includes hourly, daily, and monthly summaries of rainfall, soil moisture, air and soil temperature, relative humidity, and wind speed and direction. Detailed data collection from automated weather stations started in 1990. The database includes about 300,000 hourly weather recordings.
- Corona Ranch employee's periodically download data from automated weather recording devices located at two locations on the Corona Ranch. A third automated recorder located on the ranch is the Natural Resources Conservation Service (NRCS) Soil Climate Analysis Network (SCAN) site located on the Corona Ranch and referred to as the Adams Site. Ranch employee's also record rainfall amounts following storms from rain gauges scattered across the ranch.



Weather Stations

NMCC	NM climate center
NRCS	NRCS-Scan site
SH	South House (1 mile S. North Camp)
OW	Oil Well (1.5 mile SE North Camp)

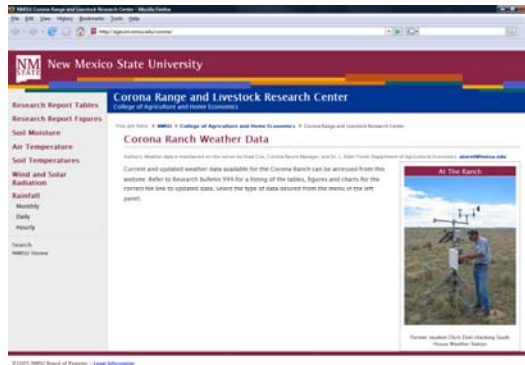
Manual Rain Gauges

HQ	Headquarters (S of shop)
NC	North Camp (W of residence)
C	Start of Lane (gate post)
K	End of Lane (COK fence line)
J	I/J Corral (gate between I and J)
John	Johnson Corral (S of Corral)
Sheep	Sheep Pastures (SE and W pipeline gate)
Corral	L Corral (Terminated in June 1999)

Weather monitoring locations on the Corona Ranch.

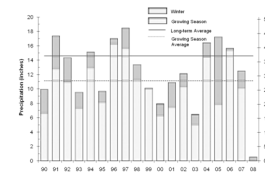
How do I access the data?

- Corona Ranch weather data can be found with links from the main Corona Ranch website located at the website <http://Corona.nmsu.edu>.
- Data for soil moisture, air temperature, soil temperature, wind and solar radiation and rainfall are linked on the left-hand side of the page with directions about which spreadsheet or database includes the desired data.
- Data can also be downloaded and viewed in the same format as the various tables and figures shown in the recently published NMSU Research Report that summarizes Corona weather for the period 1990-2007.
- The data are stored in Microsoft Access and Excel files.

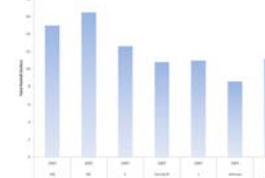


Summer thunderhead on the Corona Ranch

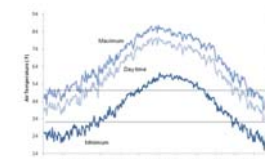
The Weather of the Corona Ranch



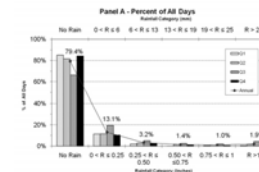
Annual and growing season (April–October) rainfall amounts (Jan.–March 2008).



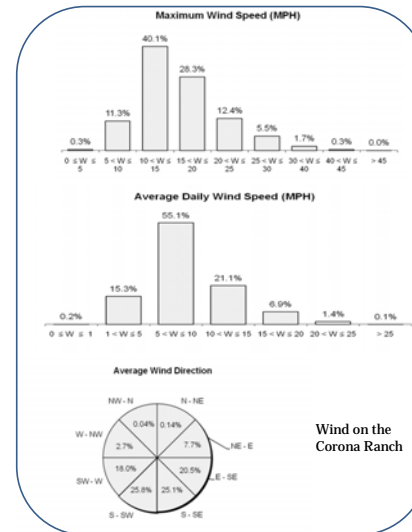
2007 Rainfall amounts from rain gauges.



Average daily minimum, maximum, and daytime temperature on the Corona Ranch.



Frequency of rainfall events in the year.



Wind on the Corona Ranch