

Winter Weather Conditions for Yuma County, 2011-2012



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The data shown in the following figures and table were recorded at four separate University of Arizona's Arizona Meteorological Network (AZMET) weather stations that provide meteorological data and weather-based information. The variables summarized in this report included average ambient air temperature, average wind speed, and precipitation for each site. A full description of each location as well as full access to the data used in this report can be found at the AZMET website: <http://cals.arizona.edu/azmet/>. The AZMET Stations for each location are listed as follows: 1) N. Yuma Valley, located at the Yuma Ag Center at Somerton Ave and Co. 8th St.; 2) S. Yuma Valley, located 3 miles south of Somerton (data started in Nov 2009) ; 3) N. Gila Valley, located west of Laguna Dam Rd. on Ave 7E; 4) Roll, located at Co 4th St and Ave 39E.

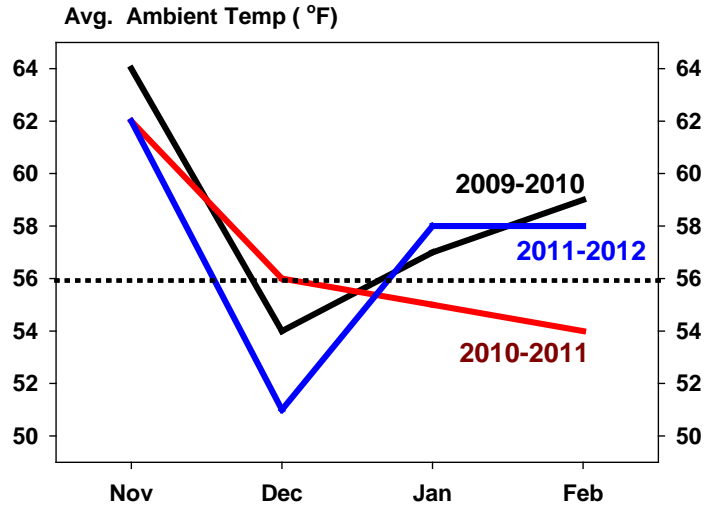
Temperatures - Figure 1 Although, average ambient temperatures were considerably cooler this season, temperatures during Jan and Feb were much warmer compared to last year in all four growing locations. Temperatures were generally warmer in the N. Yuma and N. Gila Valley stations, and generally cooler at the Roll station. In general, average nighttime low temperatures were higher this year relative to last season.

Freeze Events - Table 1 There were considerably fewer freeze events in the Yuma area this season compared to last year. At the Yuma Valley and Gila Valleys stations, all freezing events occurred during December only. Also, the average lowest temperature recorded was not as low, and freezing temperatures during freeze events were for shorter durations compared to last year. Although there were more freeze events recorded at Roll compared to the other three locations this year, overall there were fewer hard freezes at the Roll location compared to last growing season. However, there were several freeze events that occurred at the Roll station in Jan and Feb.

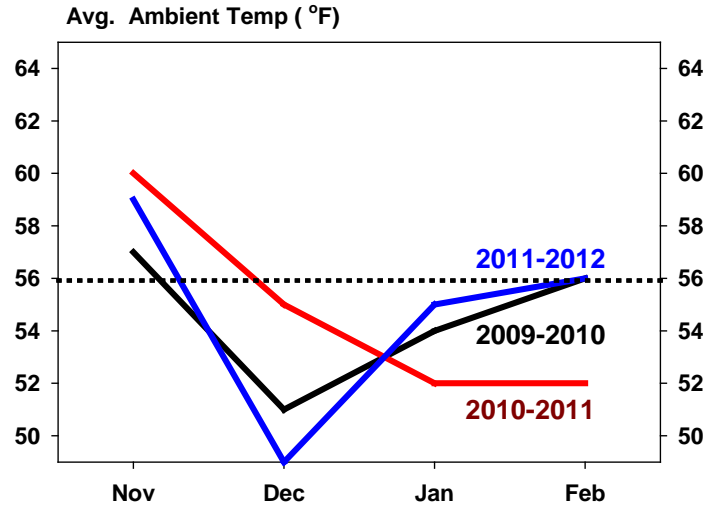
Wind speed - Figure 2 Average wind speed varied by month and location. The Roll area appeared to be the least windy among the locations, where Feb was the windiest month. The North Gila Valley was somewhat more windy where peak winds occurred during Jan. Overall the North Yuma Valley was most windy, where wind speeds were consistently highest in Jan and Feb. The South Yuma Valley was considerably less windy.

Precipitation - Figure 3 Similarly, rainfall amounts varied by location and time of the year. In the 2011-2012 season, the South Yuma Valley and Roll had the highest total amounts of precipitation, largely due to severe monsoon storms during August and September. In contrast winter rainfall was heaviest in the North Yuma and Gila Valleys. Only the North Yuma Valley had less cumulative rainfall than the previous two years.

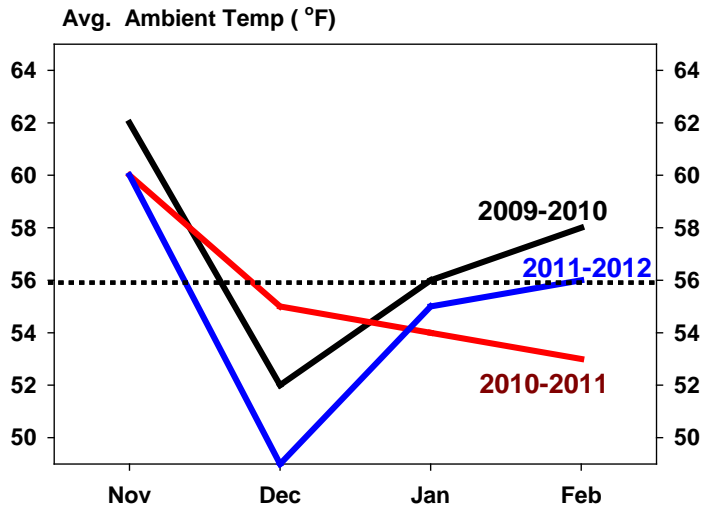
North Yuma Valley



South Yuma Valley



North Gila Valley



Roll

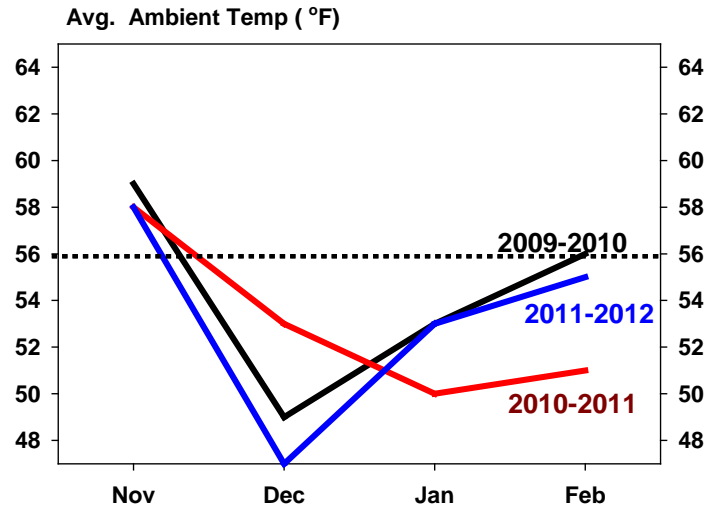


Figure 1. Average Ambient Temperatures for four AZMET locations within Yuma County, AZ 2009-2012

Table 1. Number of days and duration of temperatures below 32 °F recorded at four AZMET locations within Yuma County, AZ , 2008-2012

N. Yuma Valley (Somerton Ave. and Co. 8)

Growing season	Days with Temps below 32 °F	Avg. Lowest Temp (°F)	Avg. Hrs Temp below 32 °F
2008-2009	1	29.5	2
2009-2010	1	31.3	1
2010-2011	5	29.1	2.8
2011-2012	2	29.5	1

S. Yuma Valley (Somerton Ave and Co. 19)

Growing season	Days with Temps below 32 °F	Avg. Lowest Temp (°F)	Avg. Hrs Temp below 32 °F
2008-2009	-	-	-
2009-2010	3	30.7	1.6
2010-2011	11	28.4	4.5
2011-2012	8	30.8	2.0

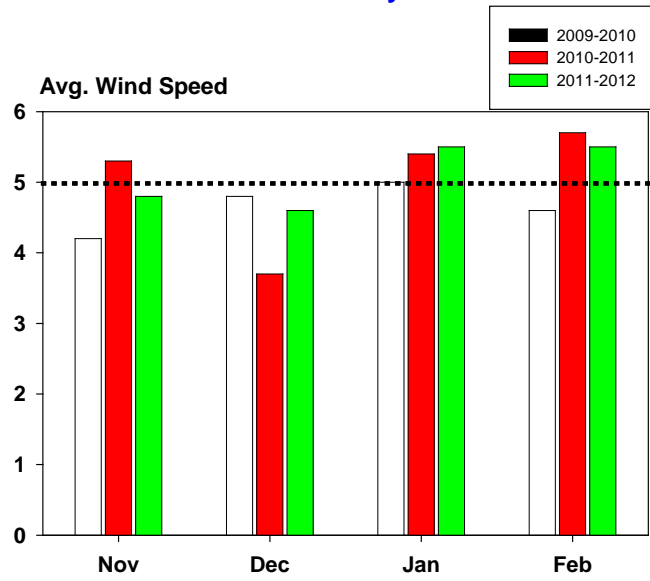
N. Gila Valley (Co. 7th St)

Growing season	Days with Temps below 32 °F	Avg. Lowest Temp (°F)	Avg. Hrs Temp below 32 °F
2008-2009	4	30.4	1.6
2009-2010	0	0	0
2010-2011	7	27.7	4.9
2011-2012	7	30.0	3.1

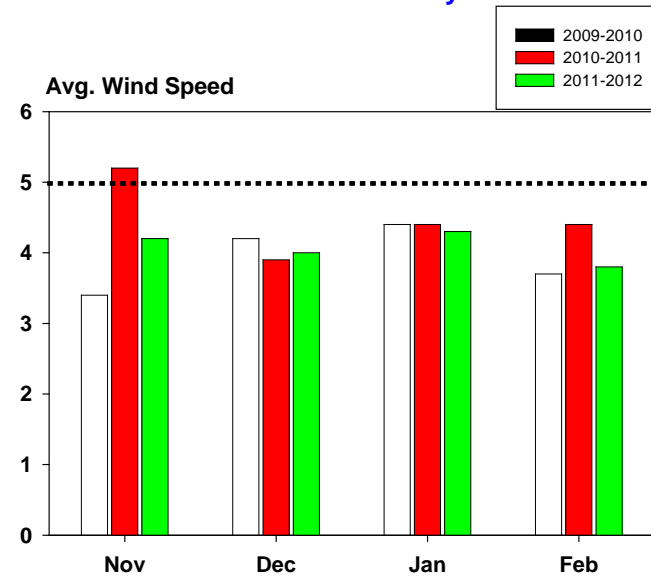
Roll (Co. 4th St. and Ave 39E)

Growing season	Days with Temps below 32 °F	Avg. Lowest Temp (°F)	Avg. Hrs Temp below 32 °F
2008-2009	17	30.6	1.8
2009-2010	19	29.1	3.3
2010-2011	30	28.3	4.0
2011-2012	19	28.2	3.9

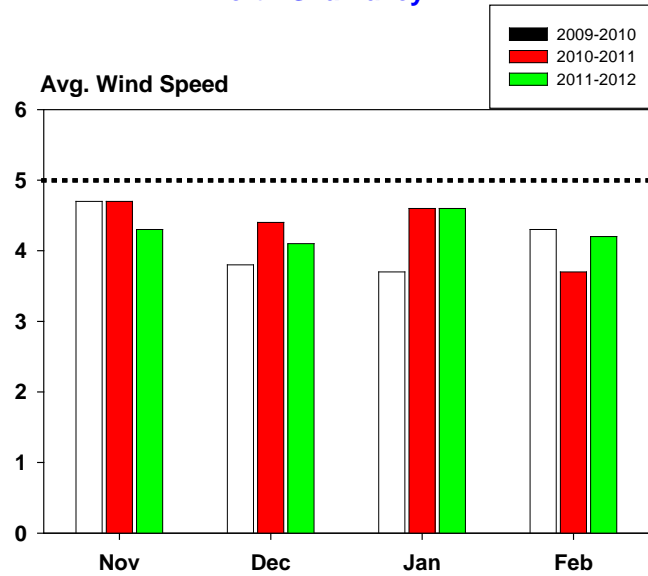
North Yuma Valley



South Yuma Valley



North Gila Valley



Roll

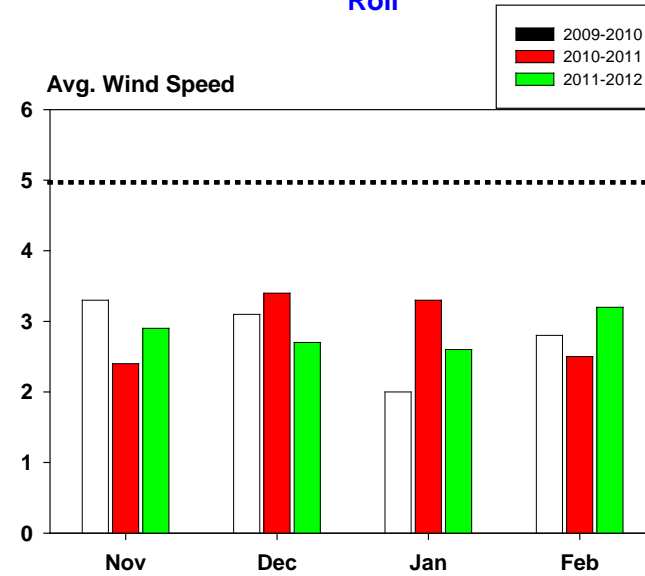
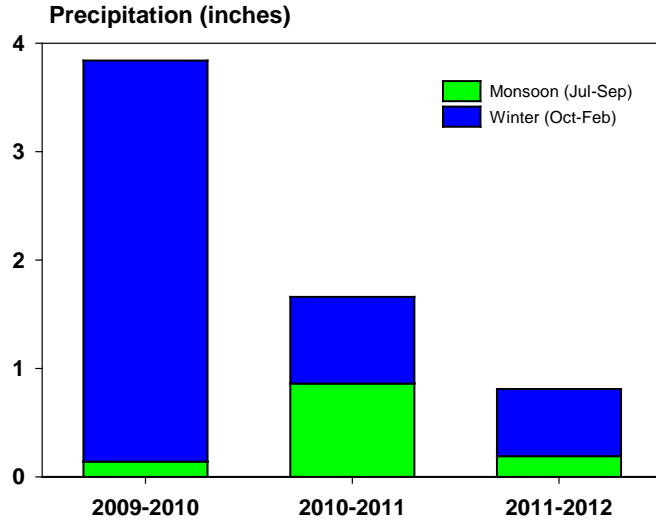
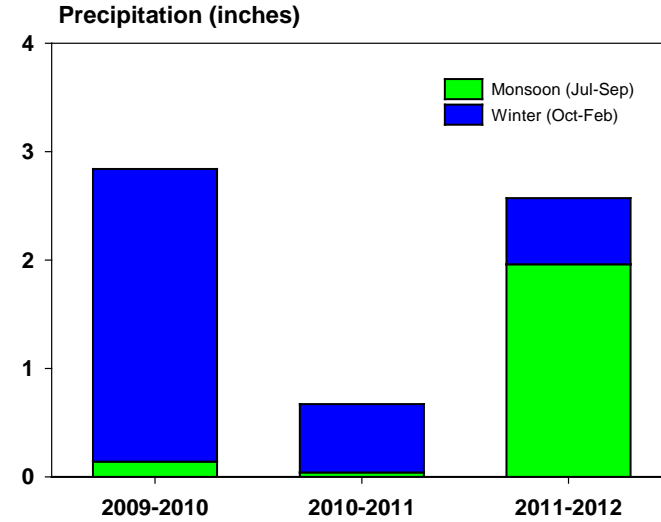


Figure 2. Average Wind Speed (mph) for four AZMET locations within Yuma County, AZ 2009-2011

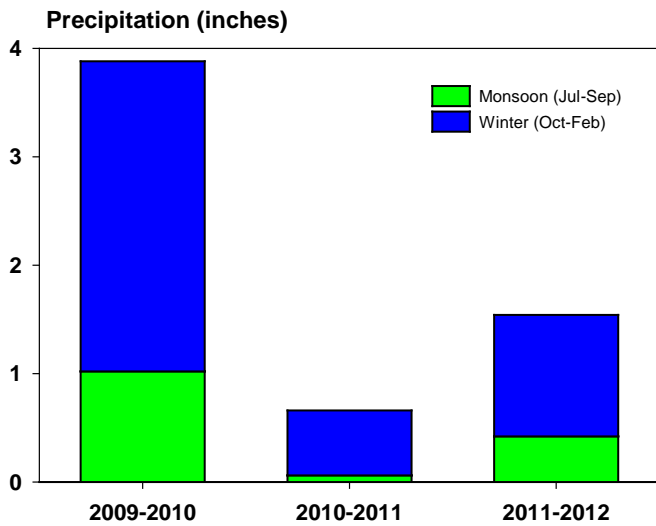
North Yuma Valley



South Yuma Valley



North Gila Valley



Roll

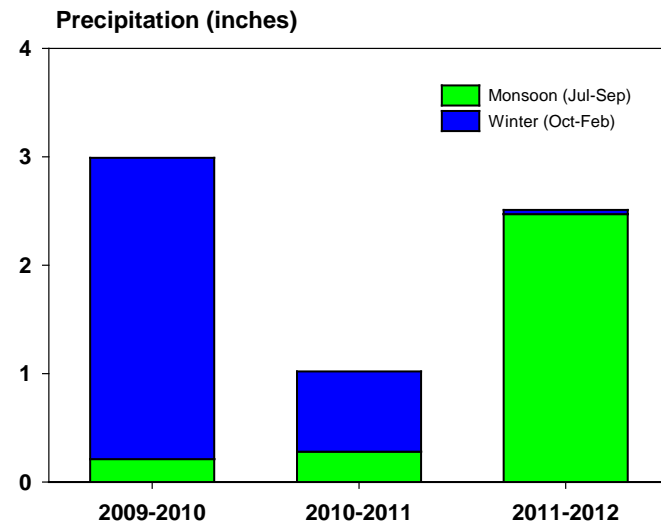


Figure 3. Accumulated Precipitation for four AZMET locations within Yuma County, AZ 2009-2011