

# UCCE SLO weather station network

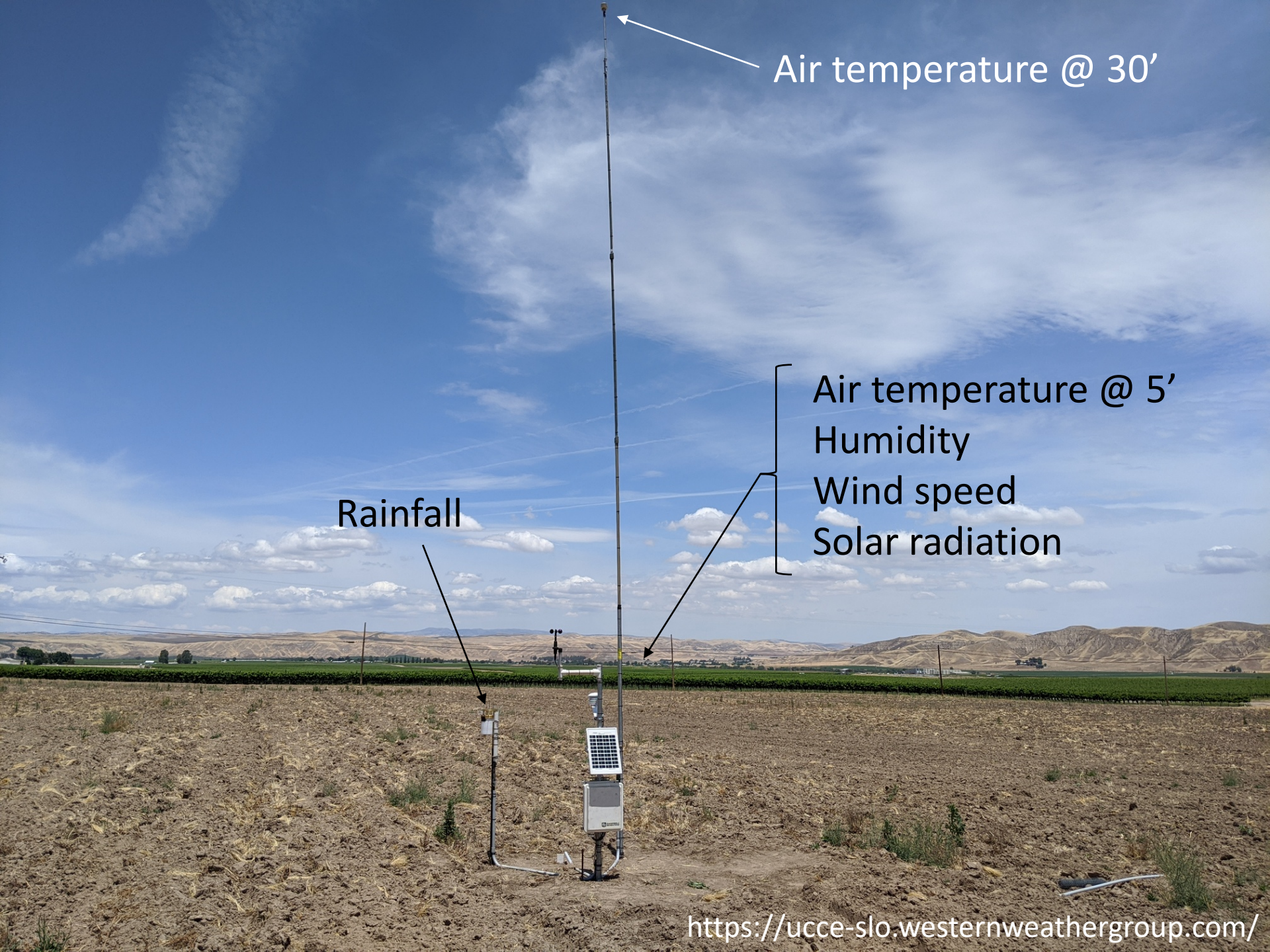
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San Luis Obispo and Santa Barbara Counties

# Network

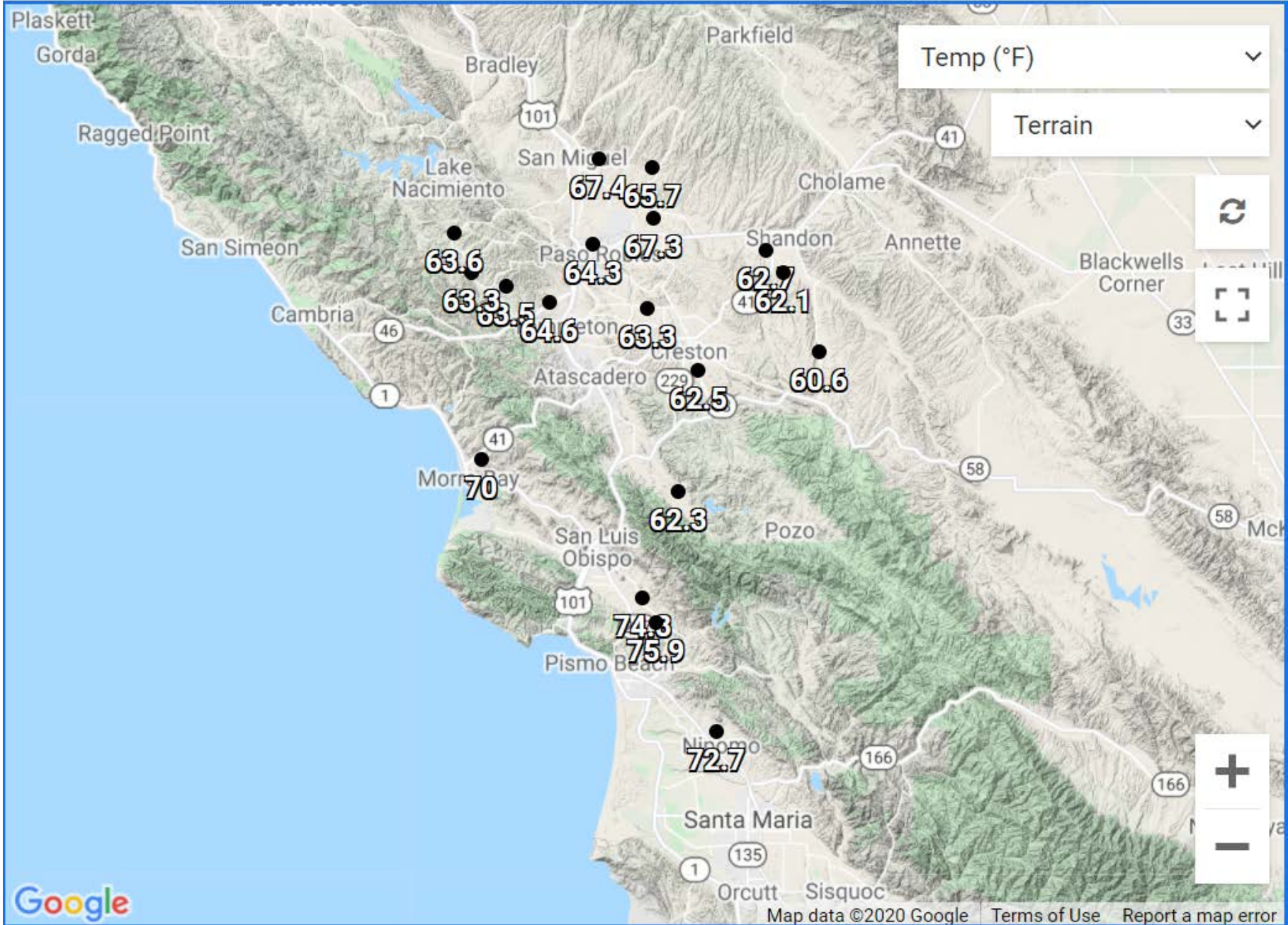
- 20 weather stations in SLO County ag areas
  - Currently have 18 installed
- Public data on the web
- Data updated every 15 minutes
- Hardware originally from NOAA
  - 2013-2019 Sonoma/Mendocino weather project
- Supported by County funds, future grants?

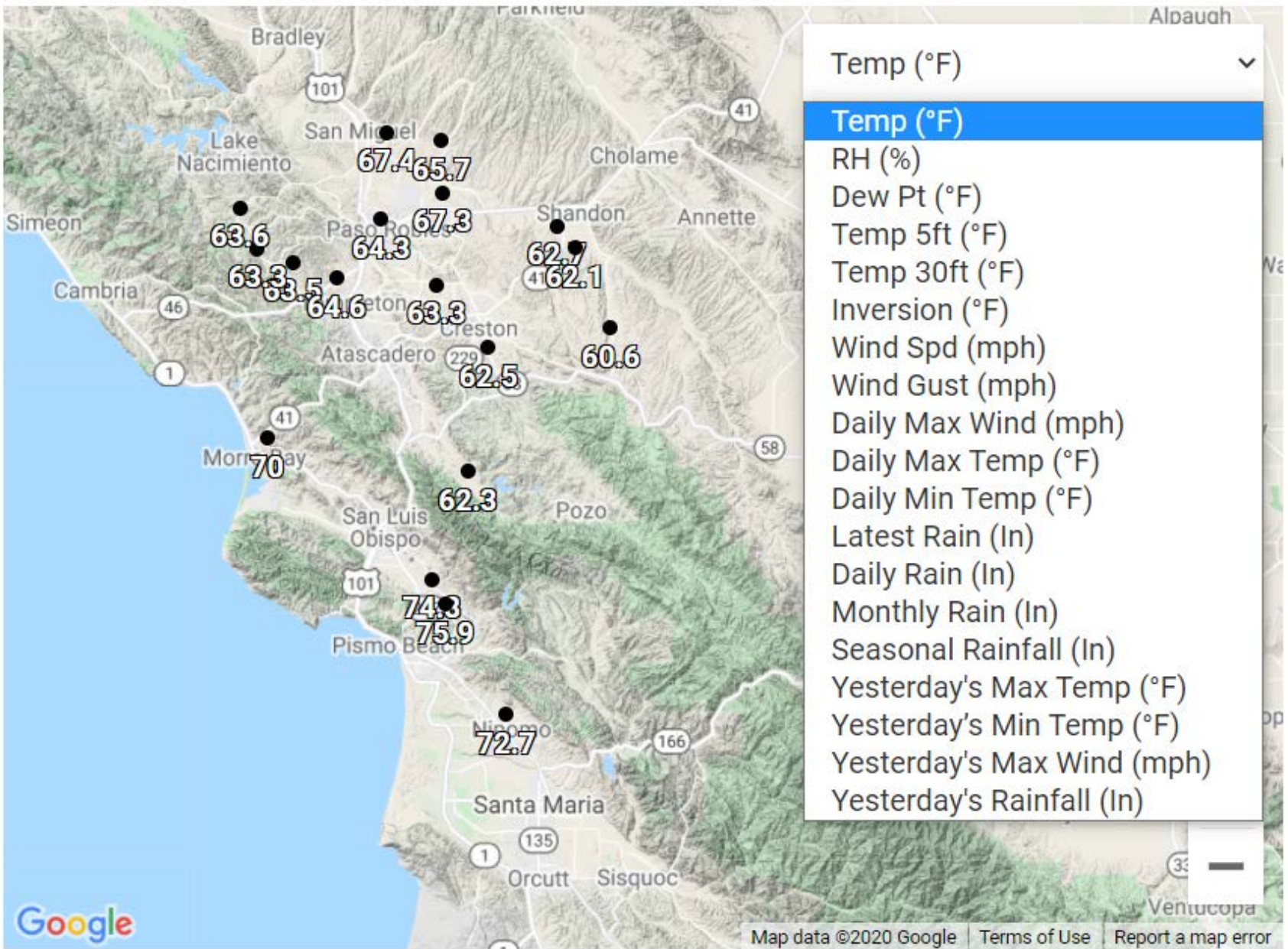


Air temperature @ 30'

Rainfall

Air temperature @ 5'  
Humidity  
Wind speed  
Solar radiation

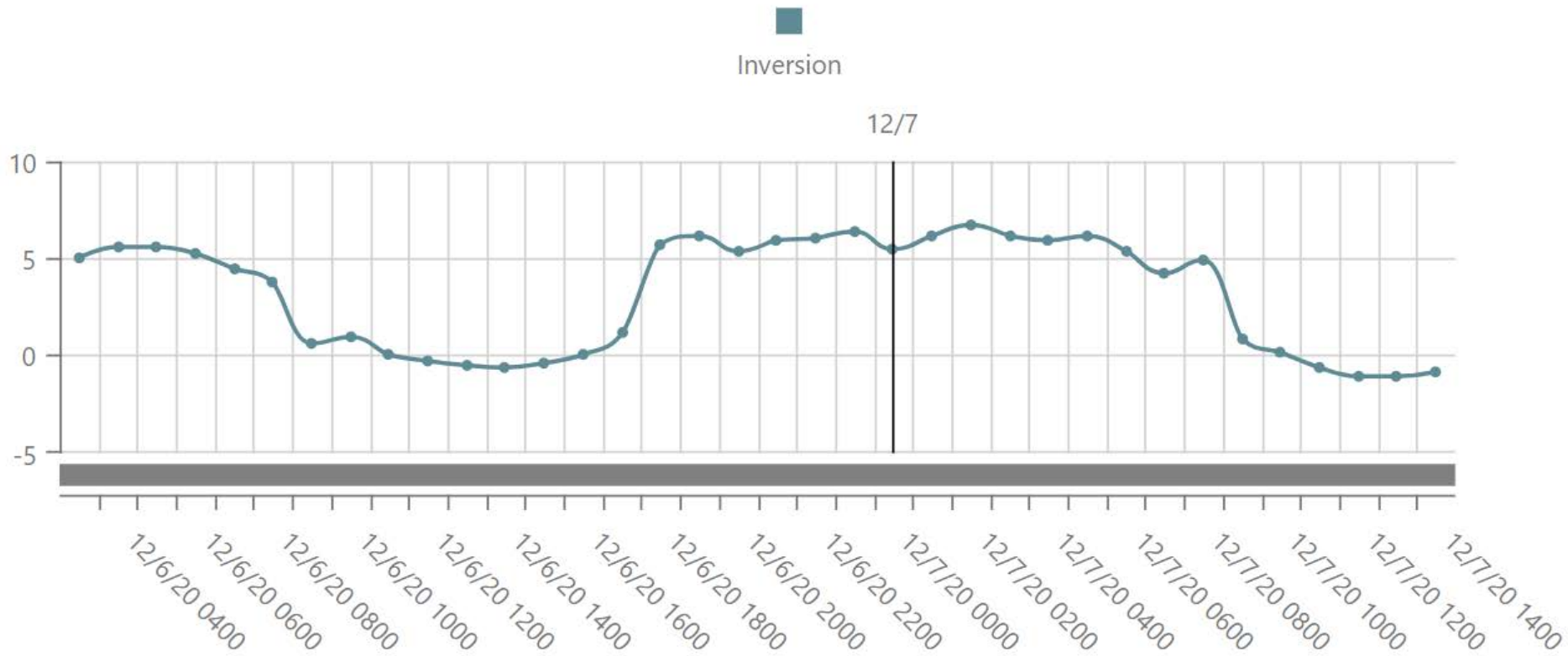




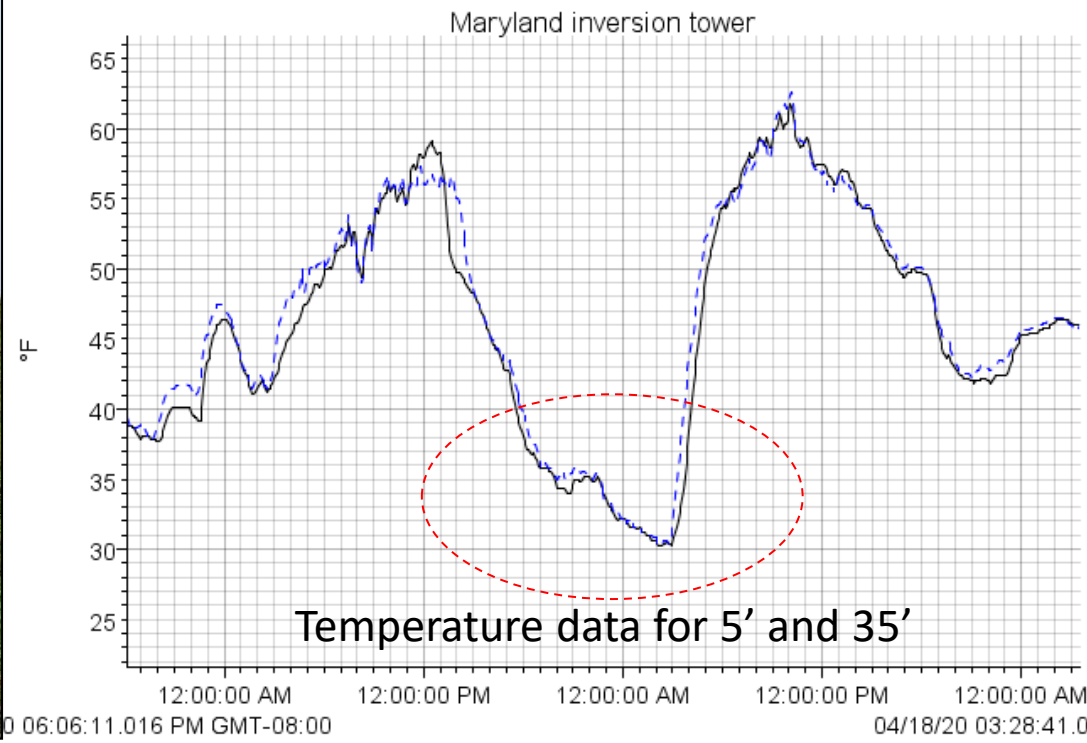
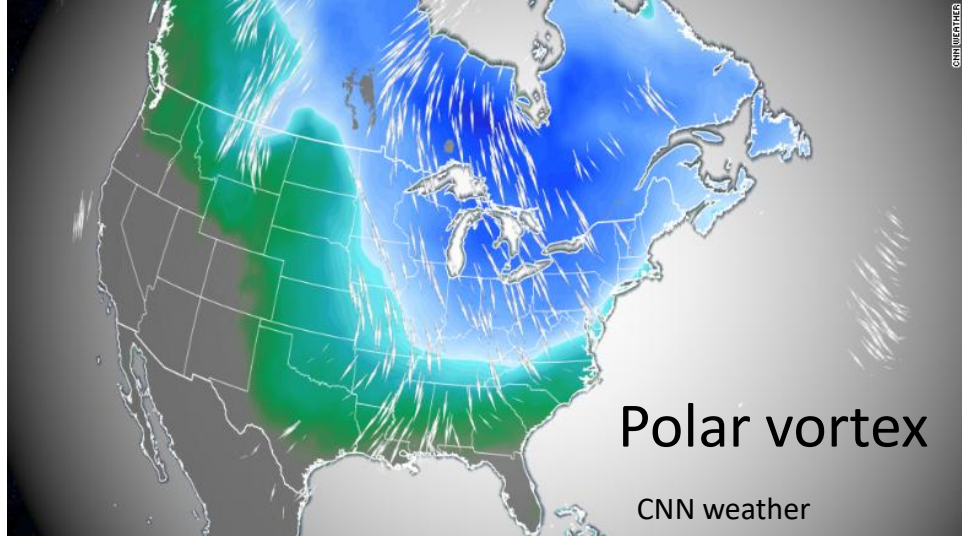
Station	Date	Daily ETo (in)	7 Day ETo (in)	Hrs 70-85F (hrs)	Hrs > 95F (hrs)	GDDs (DL)	GDDs (Mx/Mn)	Hrs <= 32F (hrs)	Hrs <= 28F (hrs)	Chilling <=45F (hrs)	Chill Hrs 32-45F (hrs)	Utah Chilling (Units)	Chilling <=45F Seas (hrs)	Chill Hrs 32-45 Seas (hrs)	Utah Chilling Seas (Units)	Chill Portions
Shandon (SLO-1)	12/5/20	0.075	0.64	1.97	0.00	5.0	0.0	3.1	0.1	12.0	8.9	4.0	366	271	117	-
Creston Rd (SLO-2)	12/5/20	0.072	0.53	1.50	0.00	4.9	0.1	2.8	0.1	13.0	10.2	5.5	360	255	88	-
NE Paso Robles (SLO-3)	12/5/20	0.072	0.56	2.52	0.00	5.5	1.7	2.1	0.0	11.1	8.9	3.5	352	265	110	-
Cross Canyon Rd (SLO-4)	12/5/20	0.070	0.52	2.37	0.00	5.8	3.4	0.2	0.0	11.5	11.4	3.5	312	264	110	-
Willow Creek (SLO-5)	12/5/20	0.070	0.51	0.29	0.00	4.7	2.4	0.0	0.0	13.1	13.1	6.0	324	267	122	-
Shell Creek Rd (SLO-6)	12/5/20	0.093	0.66	2.76	0.00	6.2	0.2	2.9	0.0	10.9	8.0	4.0	330	220	83	-
South Shandon (SLO-7)	12/5/20	0.075	0.52	1.82	0.00	5.1	0.7	2.1	0.0	11.8	9.7	4.0	356	263	115	-
South Creston (SLO-8)	12/5/20	0.075	0.56	2.68	0.00	5.5	0.2	4.4	1.6	12.5	8.0	0.0	320	200	56	-
Pozo Rd (SLO-9)	12/5/20	0.076	0.56	2.66	0.00	4.9	0.0	10.0	6.9	13.8	3.8	0.0	450	186	42	16
Experimental Station (SLO-10)	12/5/20	0.060	0.45	1.88	0.00	5.3	1.6	2.2	0.0	10.9	8.8	4.0	339	256	116	-
Vineyard Drive (SLO-11)	12/5/20	0.072	0.52	0.95	0.00	5.0	0.0	3.4	0.0	13.2	9.8	0.0	388	279	123	-
Von Dollen Road (SLO-12)	12/5/20	0.070	0.56	0.75	0.00	5.2	2.7	0.0	0.0	11.4	11.4	4.5	323	285	116	-
Templeton Gap West (SLO-13)	12/5/20	0.062	0.47	1.47	0.00	4.7	0.0	6.0	2.7	13.2	7.2	0.0	376	251	86	-
Orcutt Road (SLO-14)	12/5/20	0.075	0.64	2.48	0.00	5.0	3.7	0.0	0.0	11.6	11.6	6.0	225	217	74	-
Tiffany Ranch Rd (SLO-15)	12/5/20	0.078	0.64	2.93	0.00	5.3	2.4	2.2	0.0	12.5	10.3	0.0	293	235	72	-
Chimney Rock Rd (SLO-16)	12/5/20	0.074	0.52	0.87	0.00	5.4	2.8	0.0	0.0	12.8	12.8	6.0	353	296	88	-
Nipomo Mesa (SLO-17)	12/5/20	0.078	0.67	2.46	0.00	5.4	3.6	0.1	0.0	10.7	10.5	6.0	181	179	44	10
Morro Creek (SLO-18)	12/5/20	0.061	0.72	0.00	0.00	2.8	0.8	0.0	0.0	12.5	12.5	7.5	133	132	80	11

# Templeton Gap West (SLO-13)

Last 36 Observations

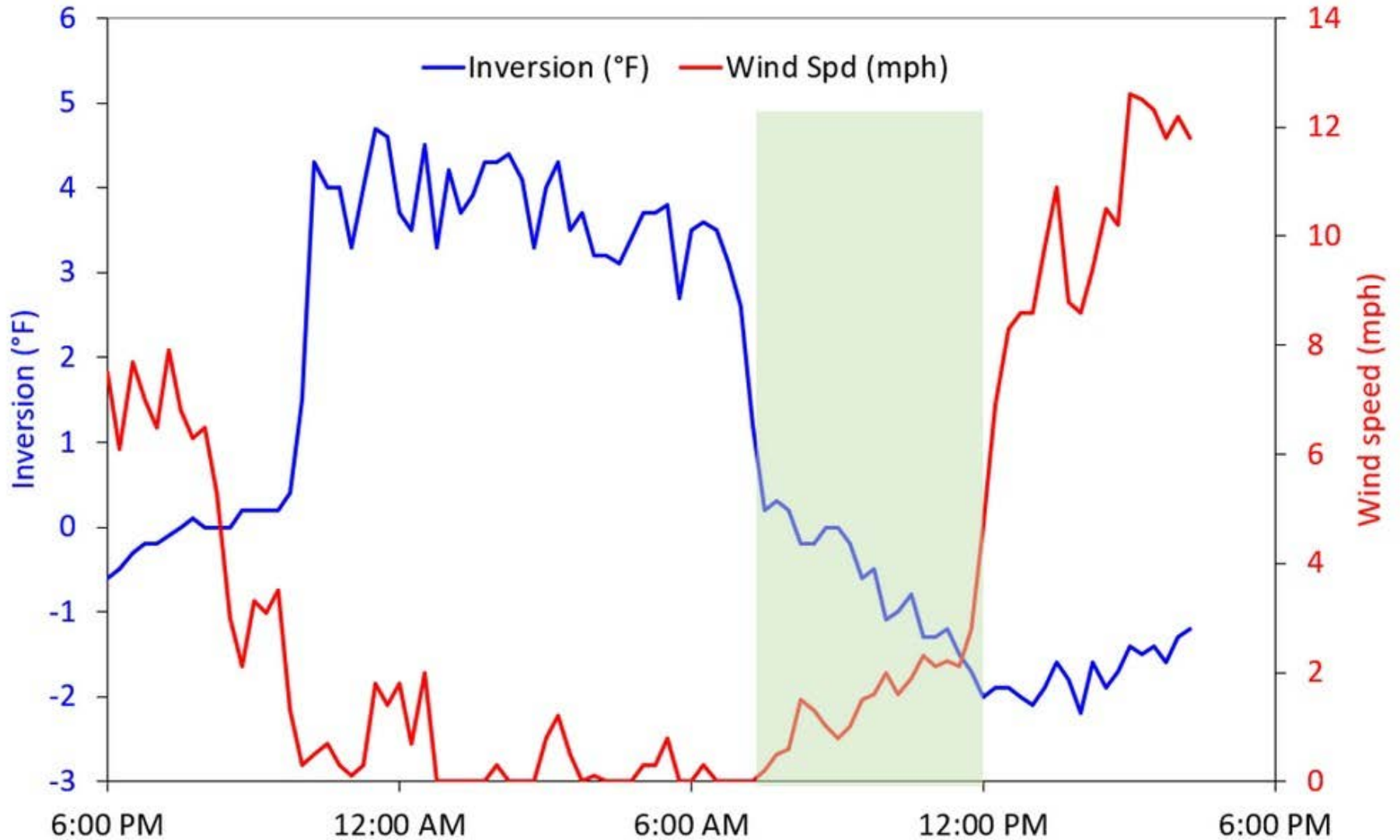


“Inversion” = Temp at 30’ – Temp at 5’





# Inversion strength and wind speed; station SLO-13, July 26-27, 2020



# Value for water management

- Regional rainfall
- Reference evapotranspiration\* (ET<sub>o</sub>)

\* But without “reference” conditions of a large well-watered grass surface

# CIMIS station for Paso Robles?

- CA Dept of Water Resources network for measuring accurate Reference Evapotranspiration (CIMIS)
- Critical input in our satellite-based crop water use predictions
- I have the hardware for this additional station somewhere in Paso Robles....but need a large flat expanse of well-watered grass

# Going forward

- Similar network planned for SB County
- Intent is for these stations to be permanent
  - Demonstrate value & usefulness
  - Arrange perennial local support funding
  - Require maintenance, data service, web hosting