

Decision Support Workshop: Agriculture and Weather Applications

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02/15/17

Oklahoma Mesonet Tower Locations



LEGEND

- OSU/OU Research (19)
- ✕ Academic/Foundation (11)
- Federal/City/State (15)
- ▲ Airport (10)
- Privately Owned (66)
- ARS Micronets (35)

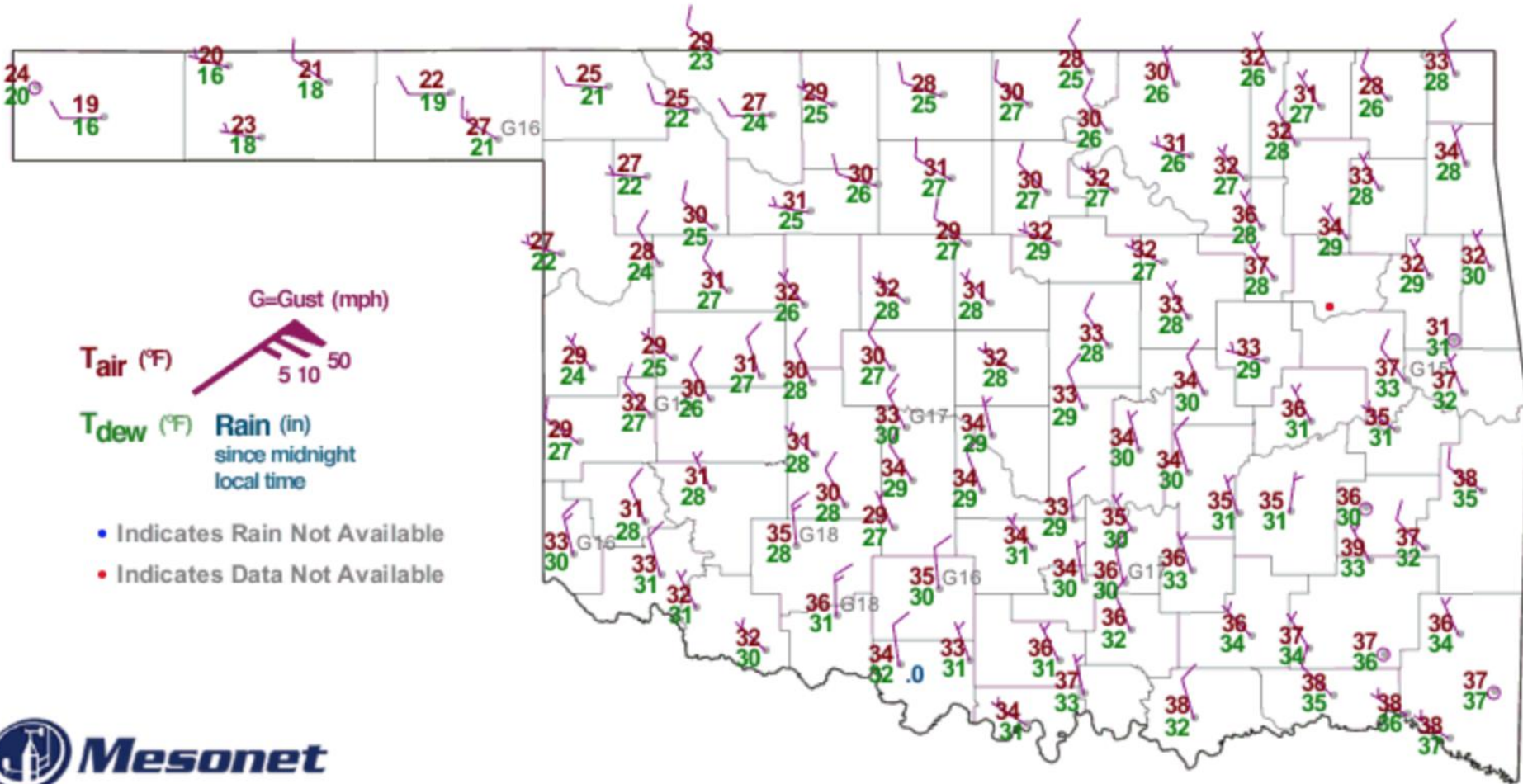


Mesonet
Oklahoma's Weather Network

Current Conditions

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7:20 AM February 15, 2017 CST

Created 7:24:21 AM February 15, 2017 CST. © Copyright 2017



Current Conditions



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CATTLE COMFORT

Weather Variables



Cattle Comfort Advisor

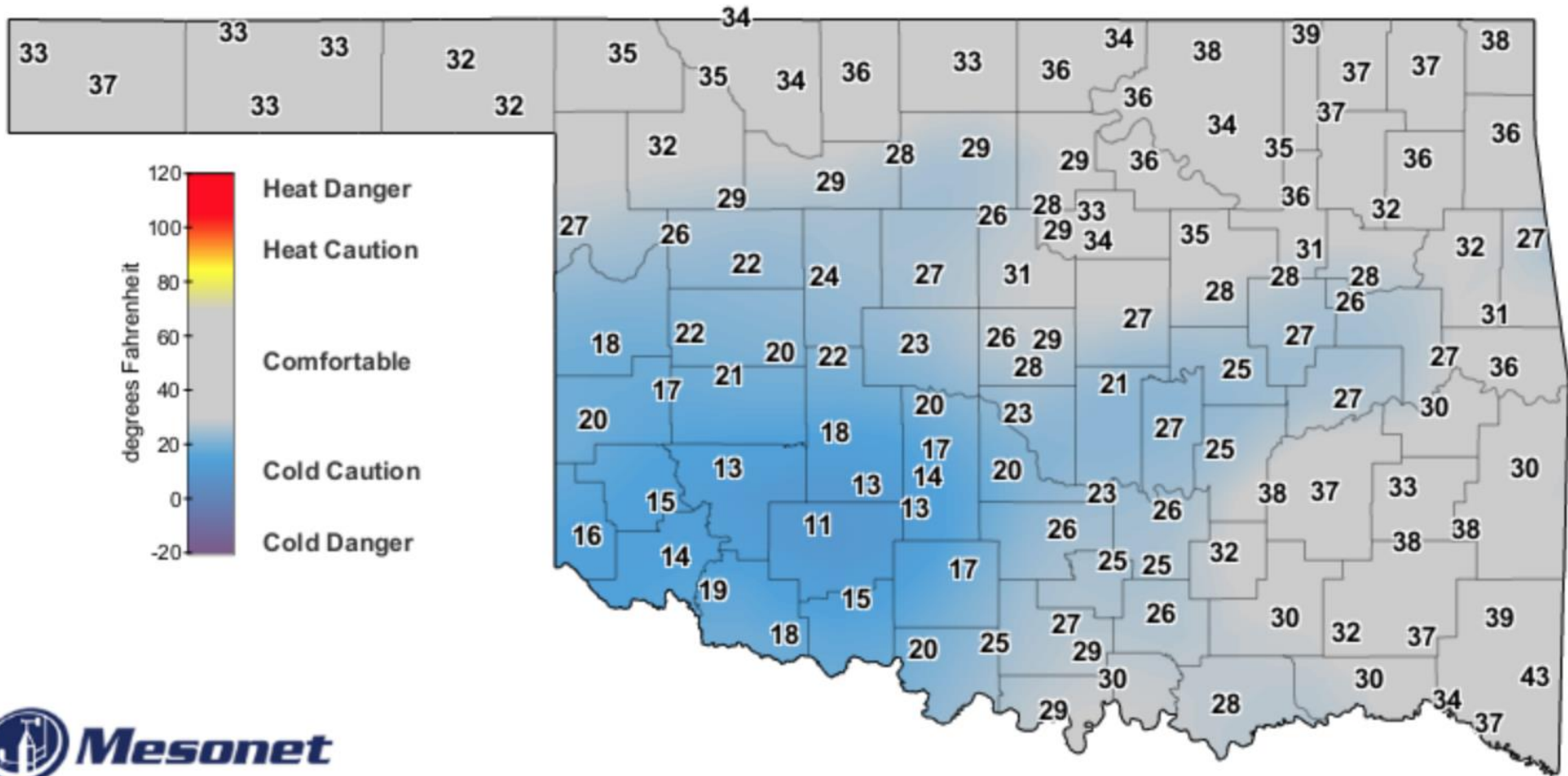
Forecast based on 12 pm CST NAM; *NEXT* forecast update expected 10 pm CST

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▶ STATEWIDE MAPS

▶ CURRENT MAP

▶ CURRENT MAP

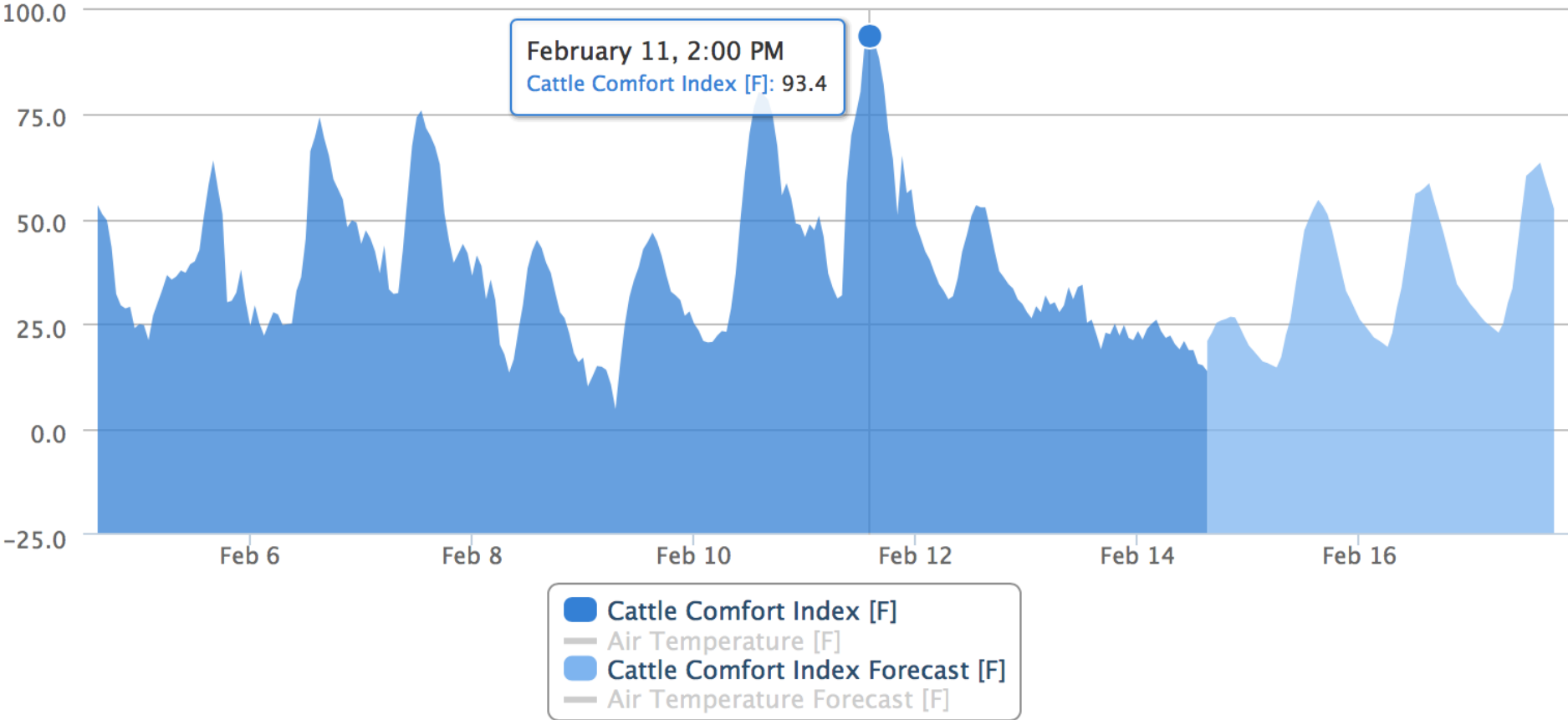


Cattle Comfort Index

3:10 PM February 14, 2017 CST

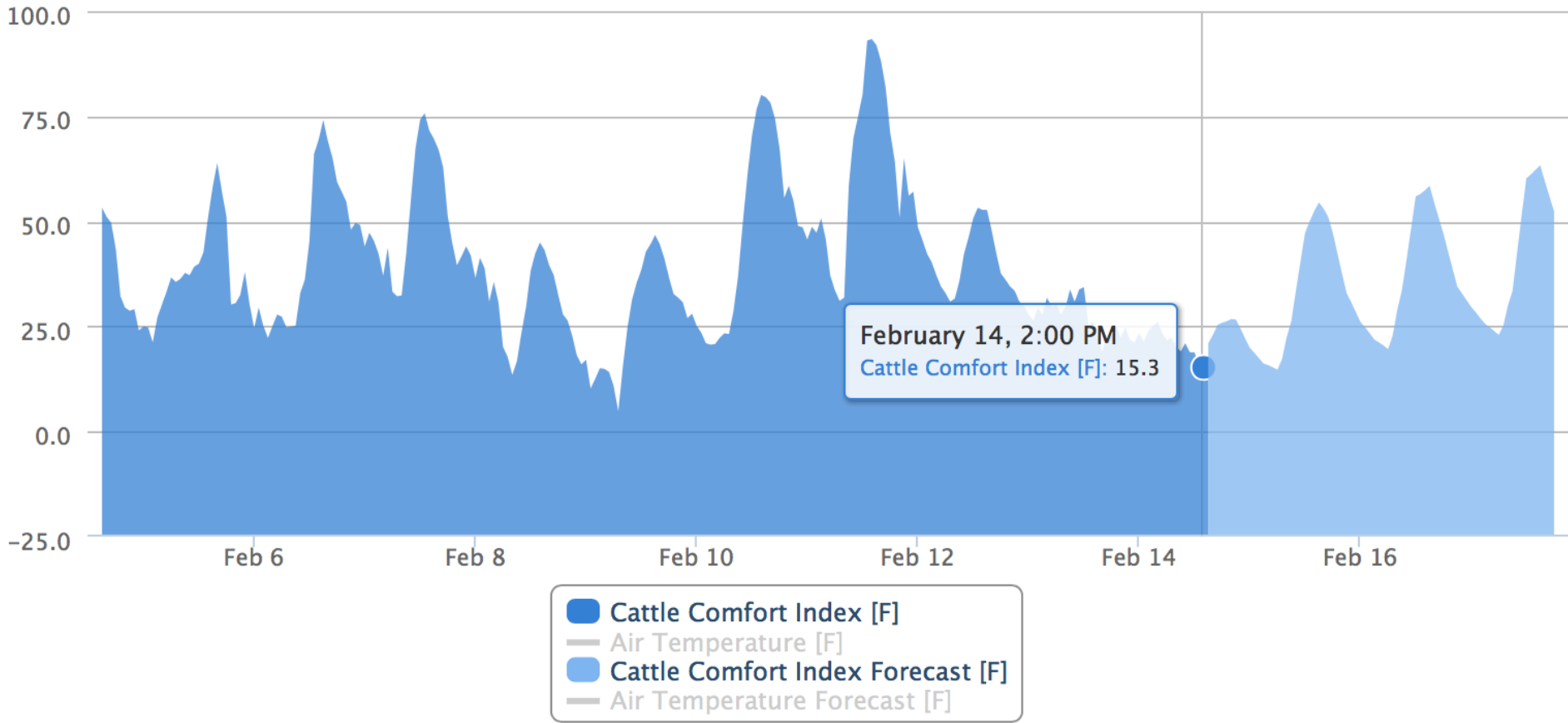
Created 3:14:38 PM February 14, 2017 CST. © Copyright 2017

Past 10 Days and Forecast Cattle Comfort Graph for Mangum



Oklahoma Mesonet

Past 10 Days and Forecast Cattle Comfort Graph for Mangum



Oklahoma Mesonet

Cattle
Comfort
Advisor

Decision Support Products

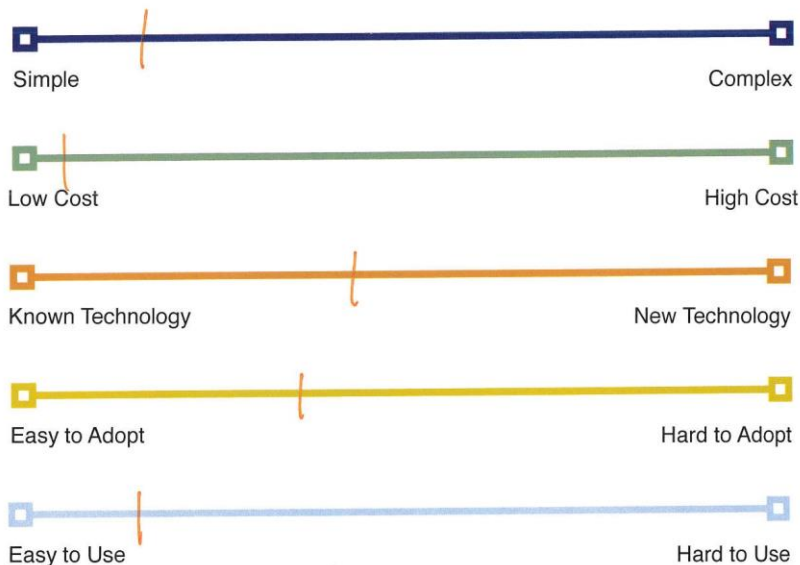
EPSCoR Workshop, Feb. 15, 2017

Ponderings of Al Sutherland, albert@mesonet.org

Agriculture and Weather Applications
mesonet.org/Agriculture

Decision support framing questions:

- address real problem or perceived problem?
- user problem or societal issue?
- current or future problem?
- unique user situation or need?



Where decision support tool/product/system falls on above scales impacts:

- learning time
- management time
- adoption time

Mesonet agriculture decision support products: Oklahoma and National Cattle Comfort, Drift Risk Advisor, wheat grazing termination, pest disease control, pest insect scouting, Irrigation scheduling, crop maturity.

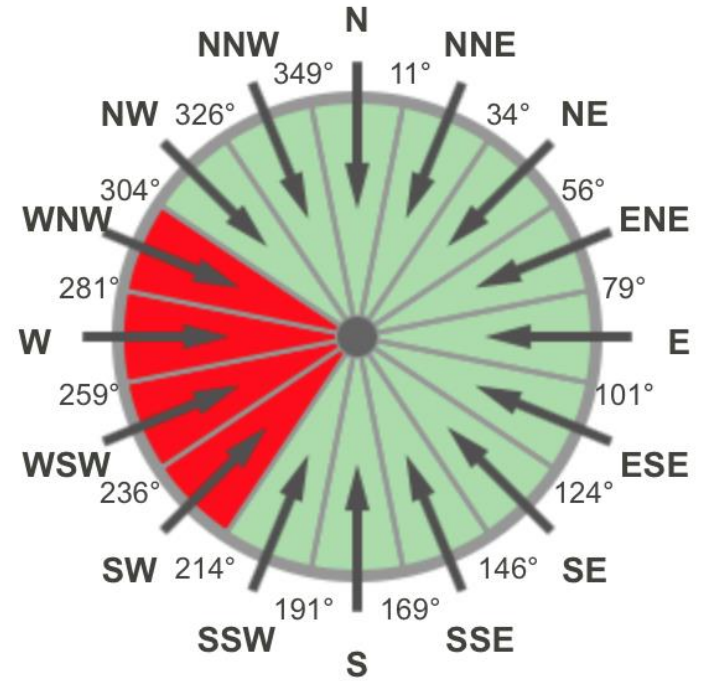


DRIFT RISK ADVISOR

Drift Risk Advisor

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Variable	Lower Limit	Upper Limit
Air Temperature (F):	<input type="text"/>	90
Relative Humidity (%):	40	<input type="text"/>
Wind Speed Avg (mph):	2	12
1hr Rainfall (inches):	<input type="text"/>	
Dispersion Conditions:	Moderately Good <input type="button" value="v"/>	



Chickasha

Show:

Next 84 Hours

Show Non-Prescribed Variables

Get Data



Mesonet
Oklahoma's Weather Network

Date and Time	Criteria Met?	Wind Direction (10m)	Wind Direction (° at 10m)	Wind Speed (10m)	Air Temperature (1.5m)	Relative Humidity (1.5m)	Dispersion Conditions	Rainfall per Hour
Sep 18, 2016 6:00 pm CDT	Yes	S	178	6 mph	86°F	59%	4 (MG)	0.00 in.
Sep 18, 2016 7:00 pm CDT	No	SSE	166	5 mph	85°F	64%	3 (MP)	0.00 in.
Sep 18, 2016 8:00 pm CDT	No	SSE	159	5 mph	82°F	69%	1 (VP)	0.00 in.
Sep 18, 2016 9:00 pm CDT	No	SSE	152	5 mph	80°F	73%	1 (VP)	0.00 in.
Sep 18, 2016 10:00 pm CDT	No	SE	144	5 mph	78°F	78%	1 (VP)	0.00 in.
Sep 18, 2016 11:00 pm CDT	No	SE	143	5 mph	76°F	82%	1 (VP)	0.00 in.
Sep 19, 2016 12:00 am CDT	No	SE	142	5 mph	75°F	85%	1 (VP)	0.00 in.
Sep 19, 2016 1:00 am CDT	No	SE	141	6 mph	73°F	89%	1 (VP)	0.00 in.
Sep 19, 2016 2:00 am CDT	No	SE	143	6 mph	72°F	90%	1 (VP)	0.00 in.
Sep 19, 2016 3:00 am CDT	No	SE	145	6 mph	71°F	92%	1 (VP)	0.00 in.
Sep 19, 2016 4:00 am CDT	No	SSE	147	6 mph	71°F	94%	1 (VP)	0.00 in.
Sep 19, 2016 5:00 am CDT	No	SSE	146	6 mph	70°F	94%	1 (VP)	0.00 in.
Sep 19, 2016 6:00 am CDT	No	SE	146	6 mph	69°F	95%	1 (VP)	0.00 in.
Sep 19, 2016 7:00 am CDT	No	SE	146	6 mph	69°F	95%	1 (VP)	0.00 in.
Sep 19, 2016 8:00 am CDT	No	SSE	155	6 mph	74°F	85%	3 (MP)	0.00 in.
Sep 19, 2016 9:00 am CDT	Yes	SSE	163	7 mph	78°F	75%	4 (MG)	0.00 in.
Sep 19, 2016 10:00 am CDT	Yes	SSE	169	7 mph	83°F	64%	5 (G)	0.00 in.
Sep 19, 2016 11:00 am CDT	Yes	S	171	7 mph	87°F	59%	5 (G)	0.00 in.
Sep 19, 2016 12:00 pm CDT	Yes	S	175	7 mph	90°F	53%	6 (EX)	0.00 in.
Sep 19, 2016 1:00 pm CDT	No	S	178	7 mph	94°F	48%	6 (EX)	0.00 in.
Sep 19, 2016 2:00 pm CDT	No	S	181	7 mph	95°F	45%	6 (EX)	0.00 in.
Sep 19, 2016 3:00 pm CDT	No	S	183	8 mph	96°F	42%	6 (EX)	0.00 in.
Sep 19, 2016 4:00 pm CDT	No	S	186	8 mph	97°F	39%	5 (G)	0.00 in.
Sep 19, 2016 5:00 pm CDT	No	S	179	7 mph	95°F	43%	4 (MG)	0.00 in.
Sep 19, 2016 6:00 pm CDT	No	S	170	6 mph	93°F	47%	4 (MG)	0.00 in.

Decision Support Products

EPSCoR Workshop, Feb. 15, 2017

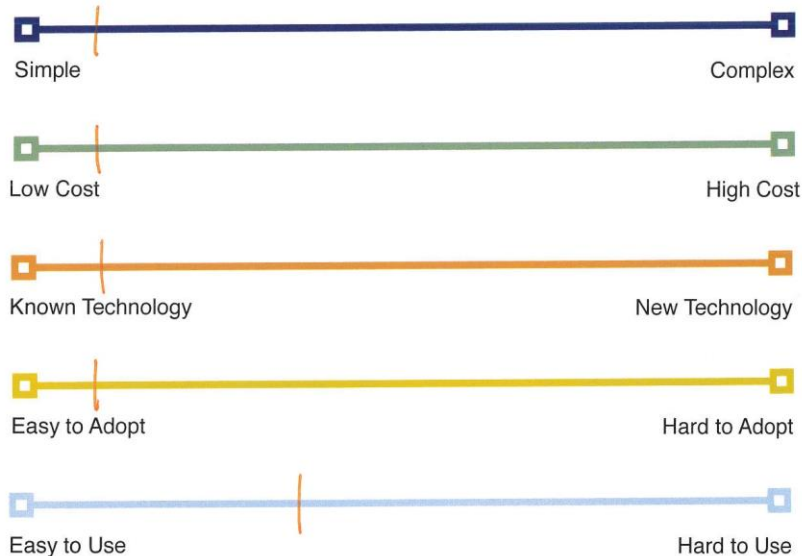
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*Drift
Risk
Advisor*

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