



2021 Wheat Crop: What to expect?

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Layout

- Wheat growth stage ID (Lollato)
- 2021 Wheat crop conditions (Lollato)



Wheat growth stage ID



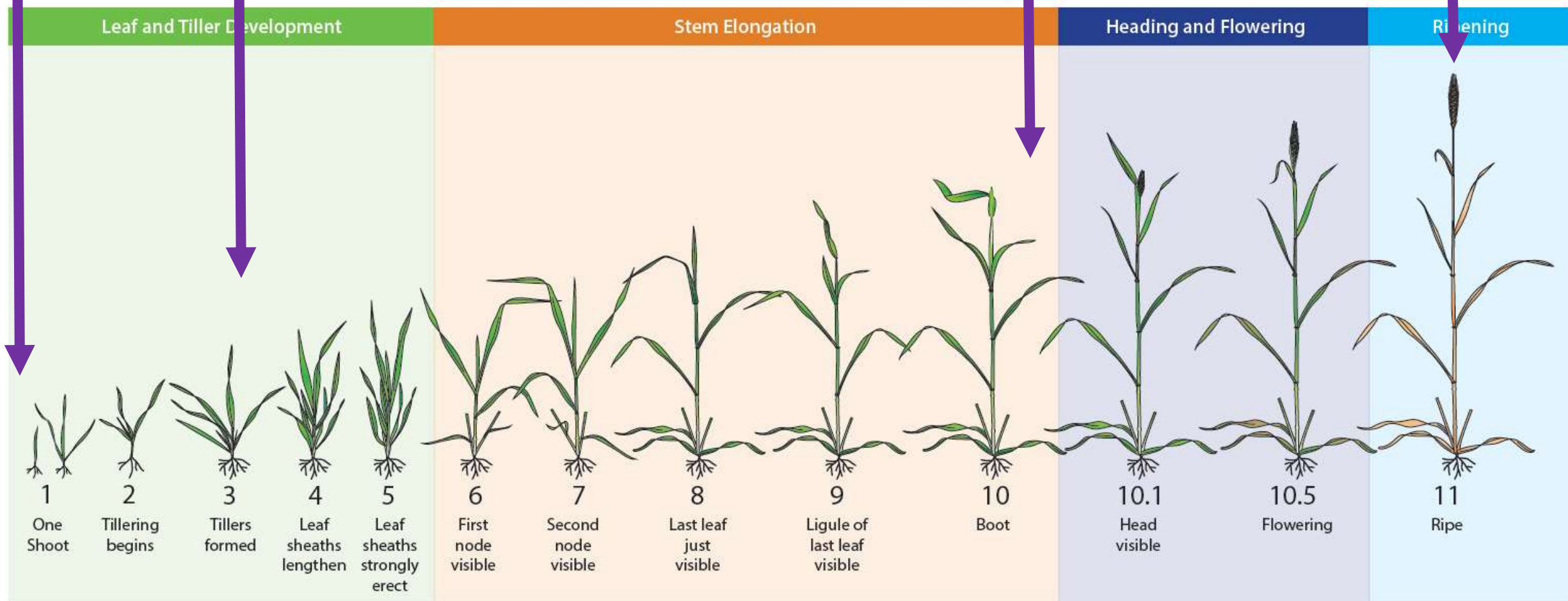
Sept./Oct.

Feb./March

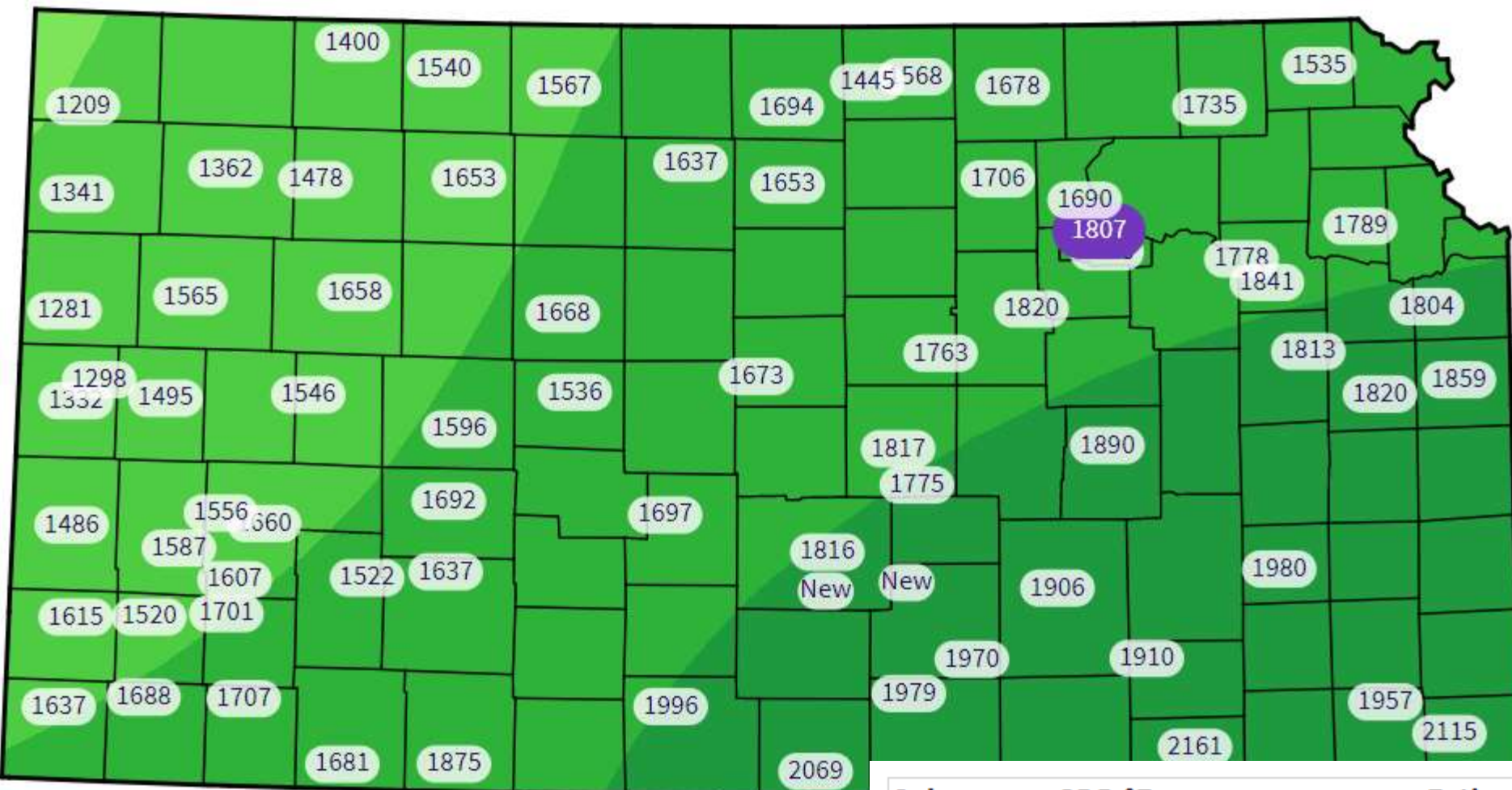
April/May

June/July

Feekes Scale of Wheat Development



Growing Degrees This Year



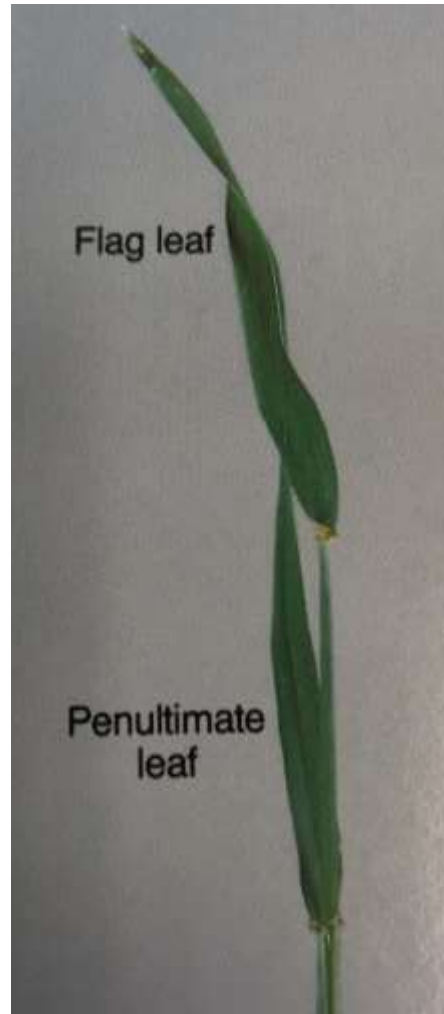
Mesonet

Color	GDD °F	Estimated Wheat Growth Stage
	1200 to 1400	Flag leaf emergence or boot
	1400 to 1600	Boot or heading
	1600 to 1800	Heading to flowering
	1800 to 2000	Heading or flowering
	2000 to 2200	Flowering or watery ripe

Stem elongation



Flag leaf fully emerged



Boot

Early heading



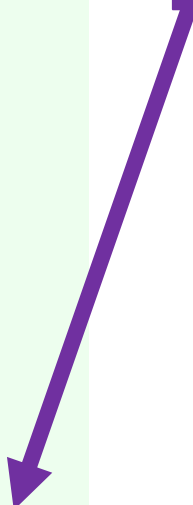
Fully headed



Watery ripe



Heads fully out



Grain elongated but still watery



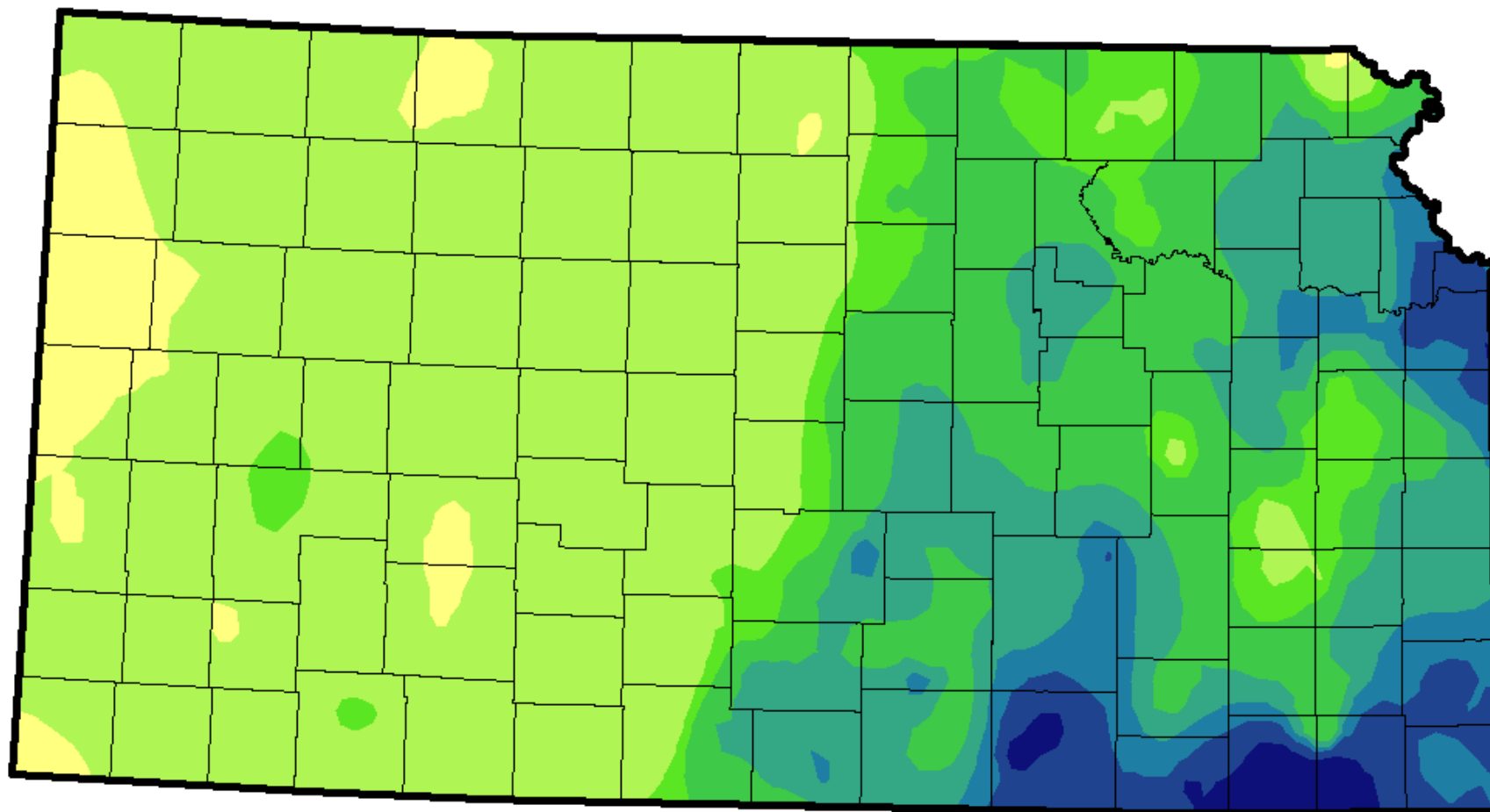
Wheat Crop Conditions

- Precipitation
- Temperatures



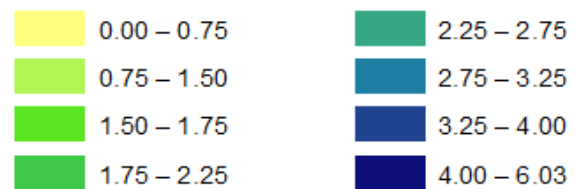
Monthly Precipitation Summary

September 1 - September 30, 2020



0 25 50 100 Miles

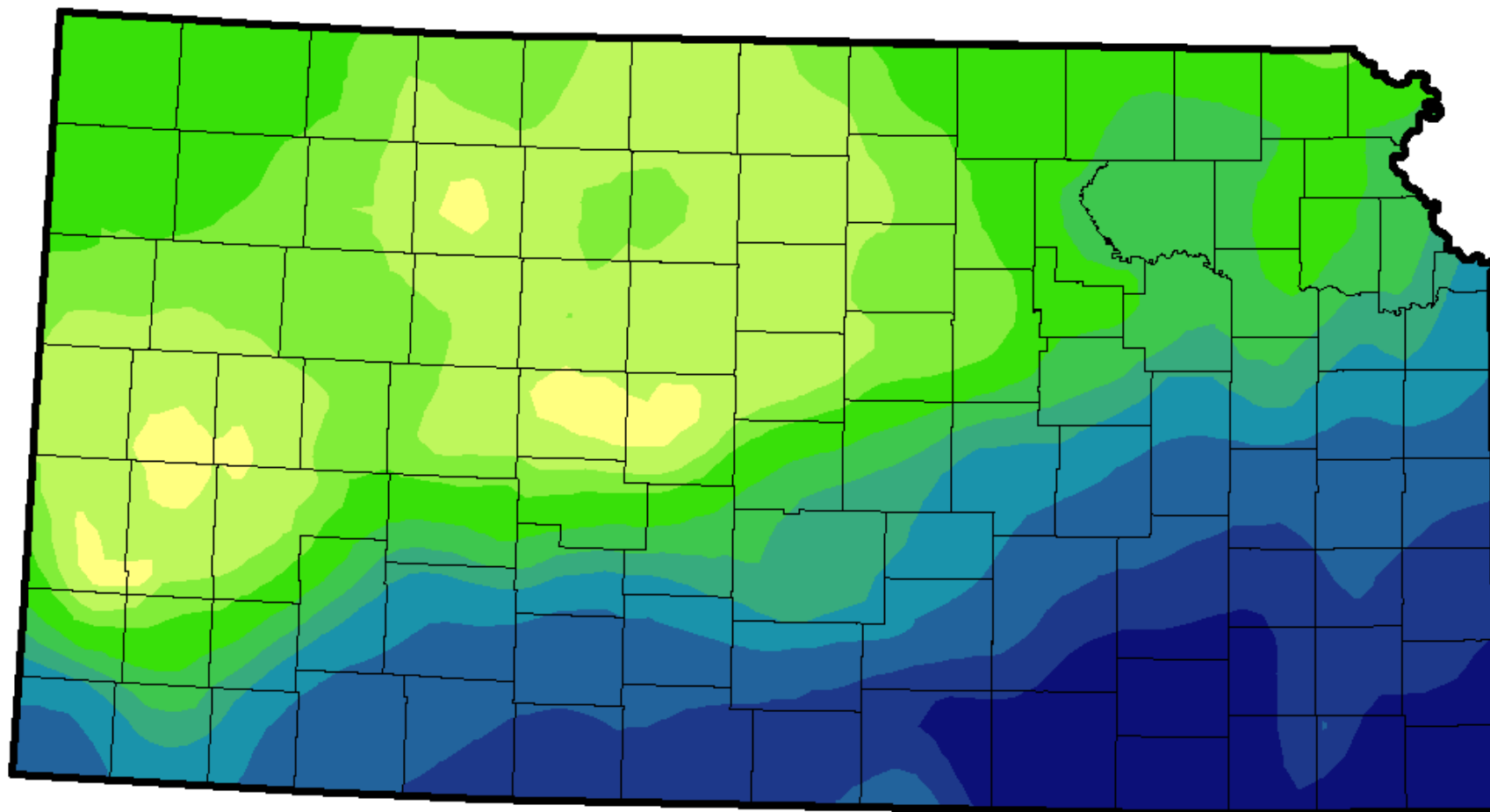
Total Precipitation (Inches)



Produced by Weather Data Library
Department of Agronomy
Kansas State University

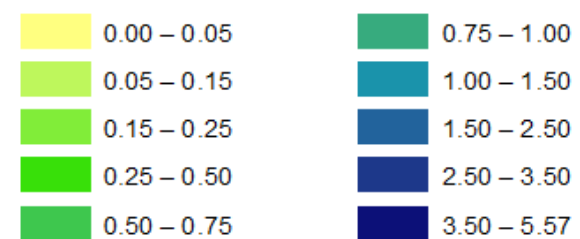
Monthly Precipitation Summary

October 1 - October 31, 2020



0 25 50 100 Miles

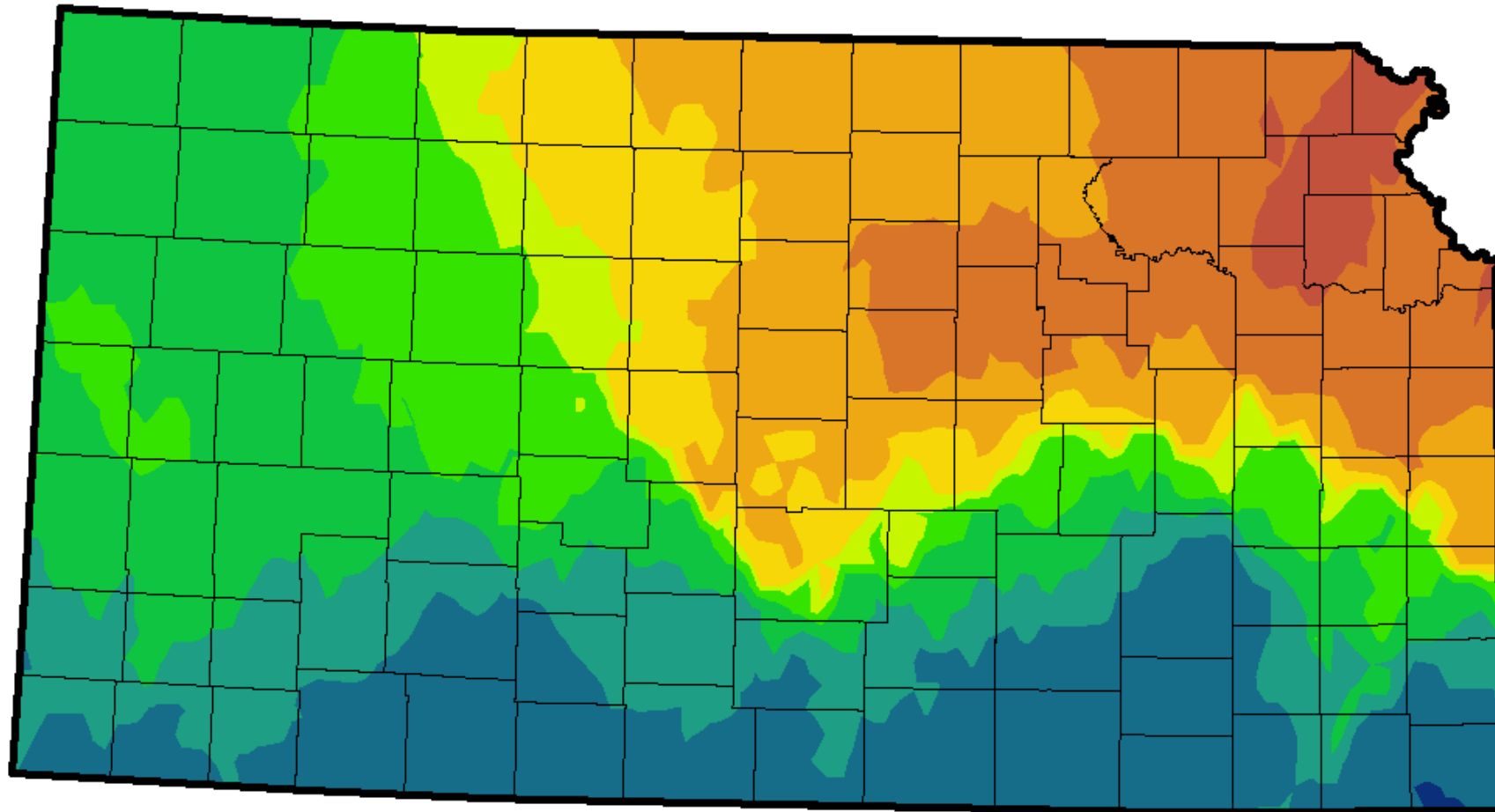
Total Precipitation (Inches)



Produced by Weather Data Library
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Kansas State University

Departure from Normal Monthly Precipitation

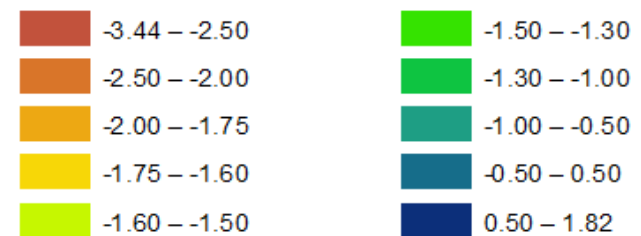
October 1 - October 31, 2020



0 25 50 100 Miles

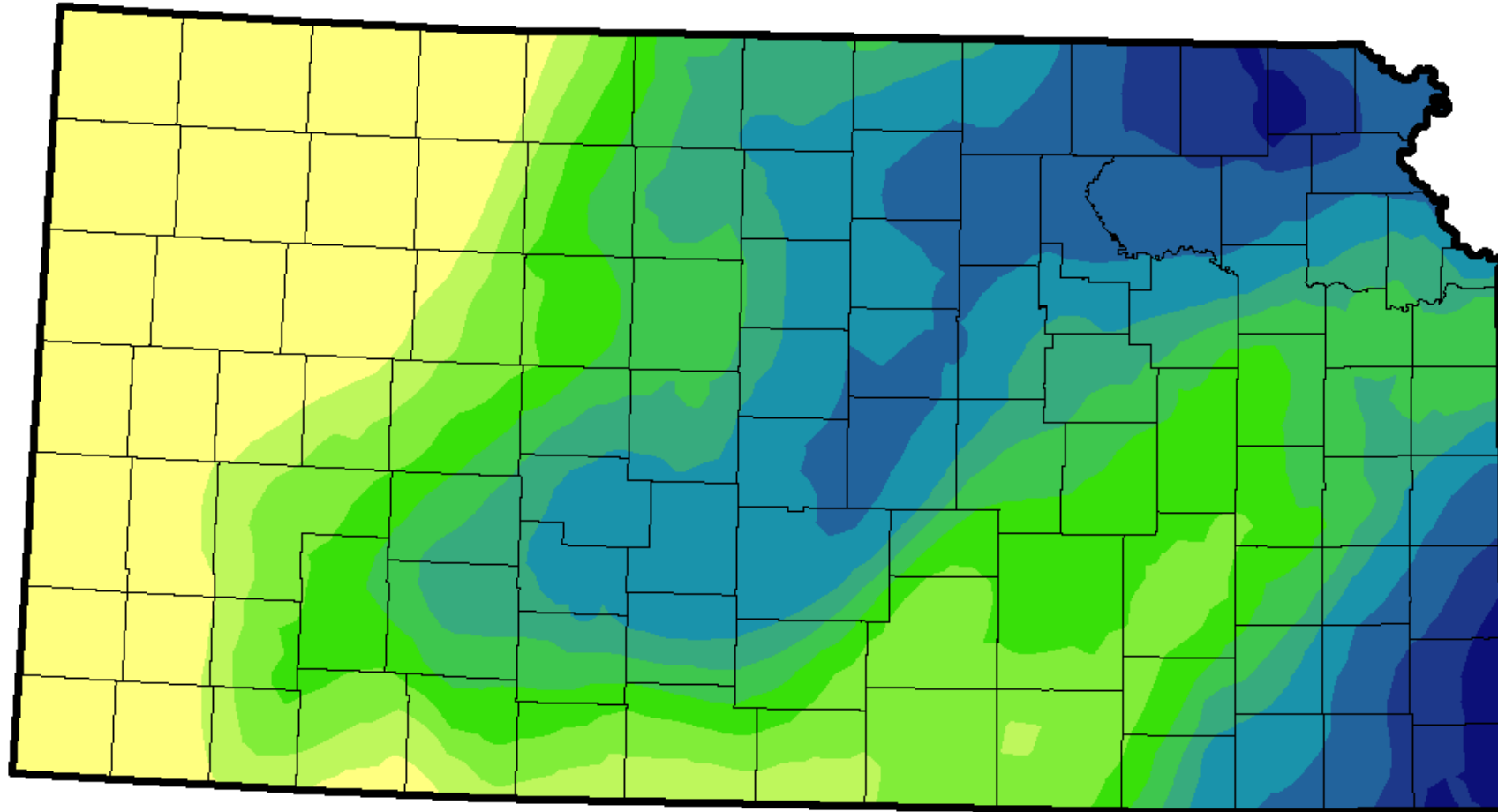
Departure from Normal Precipitation (Inches)

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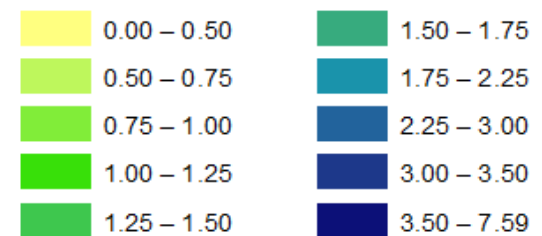
Monthly Precipitation Summary

November 1 - November 30, 2020



0 25 50 100 Miles

Total Precipitation (Inches)

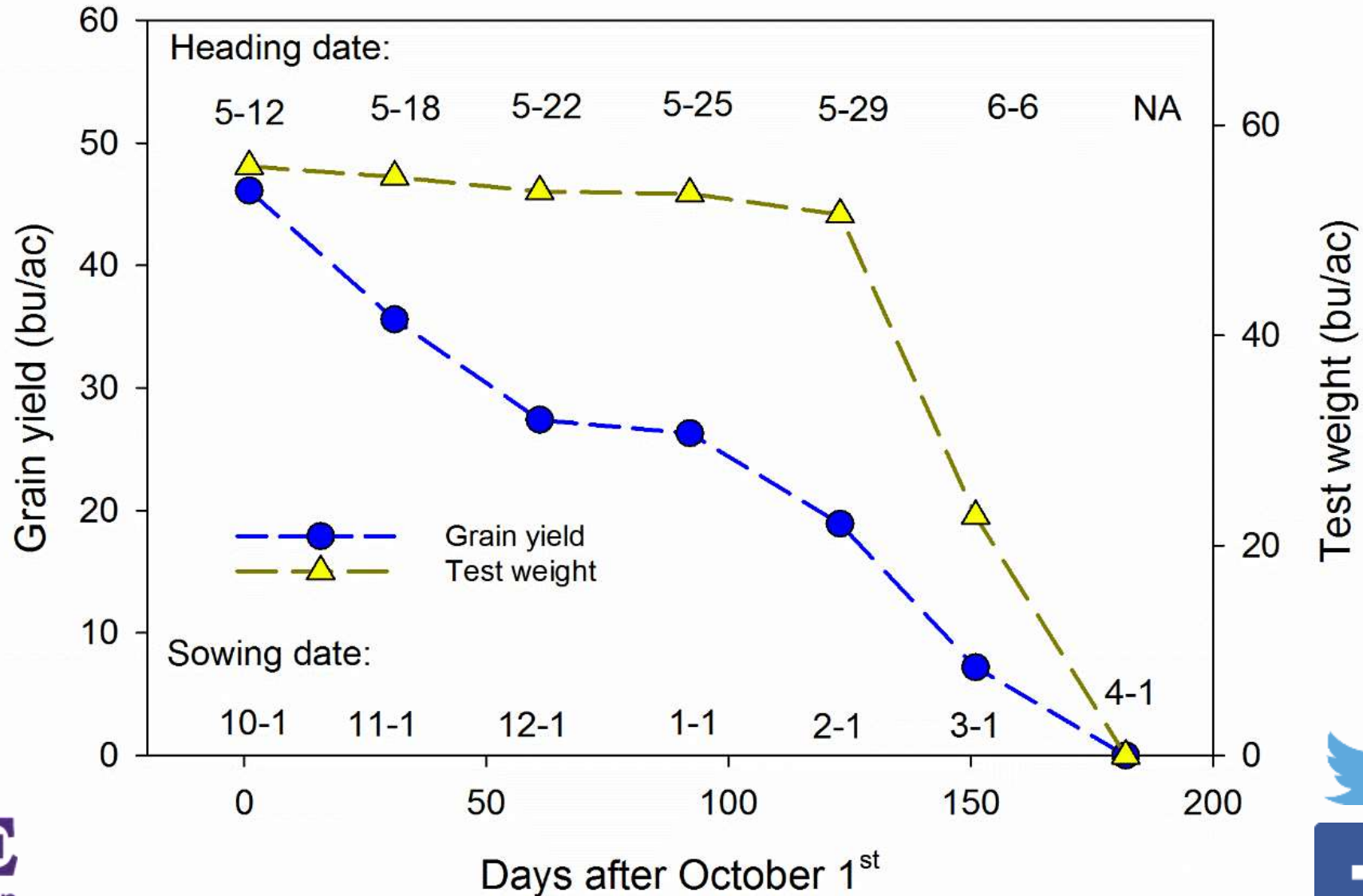


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Sept. vs. October planting

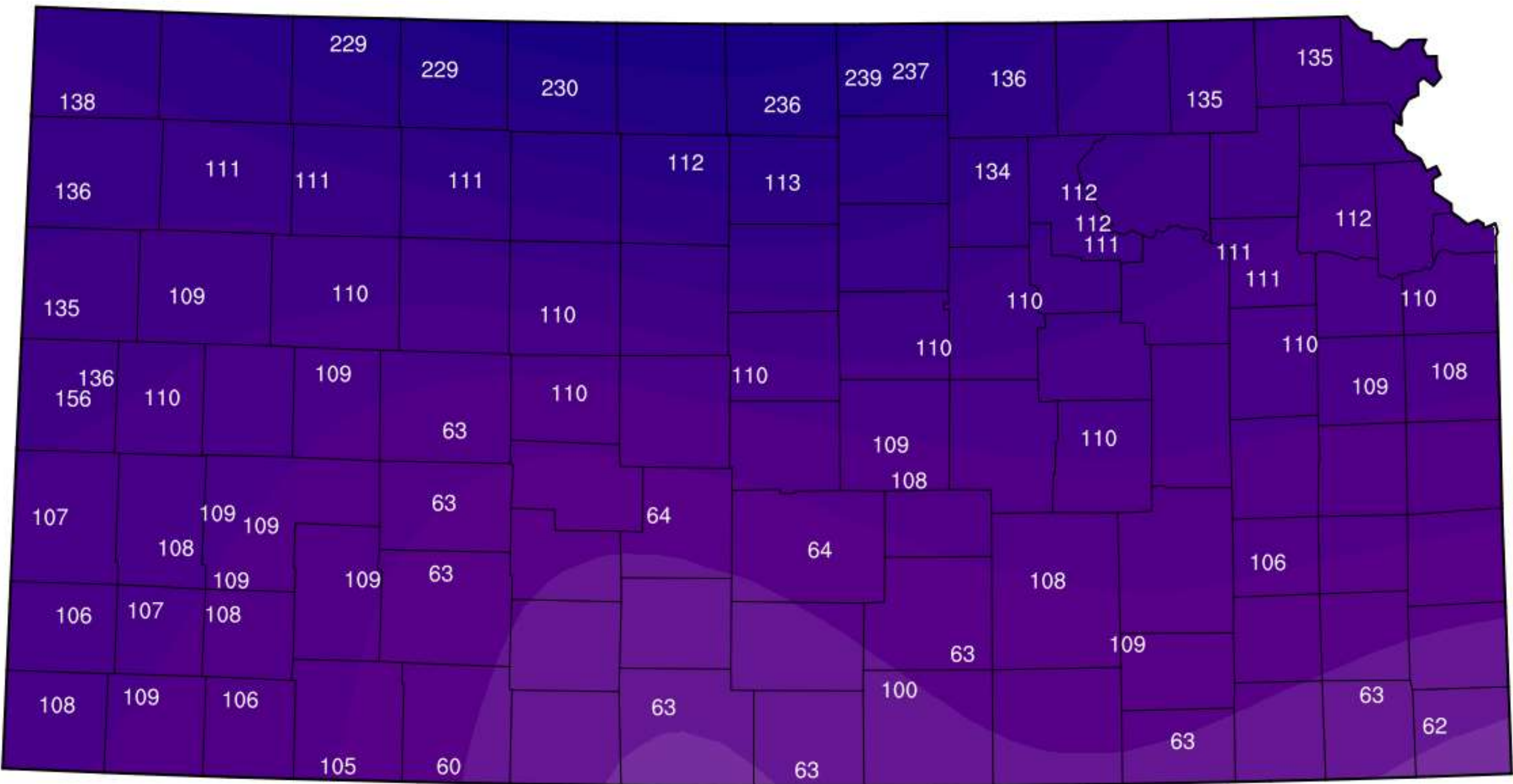


Late emergence - decreased yield potential



 @KSUWheat

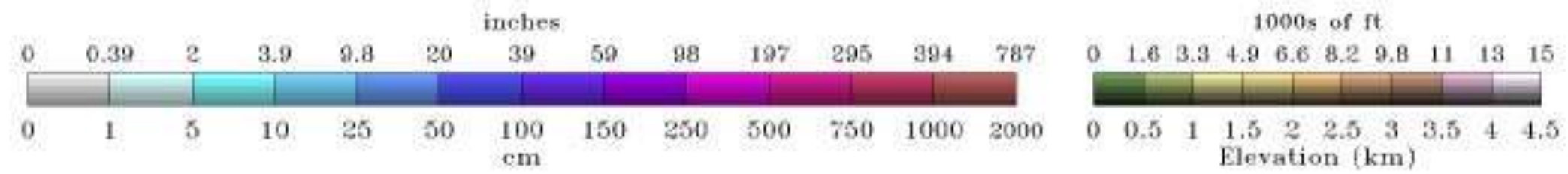
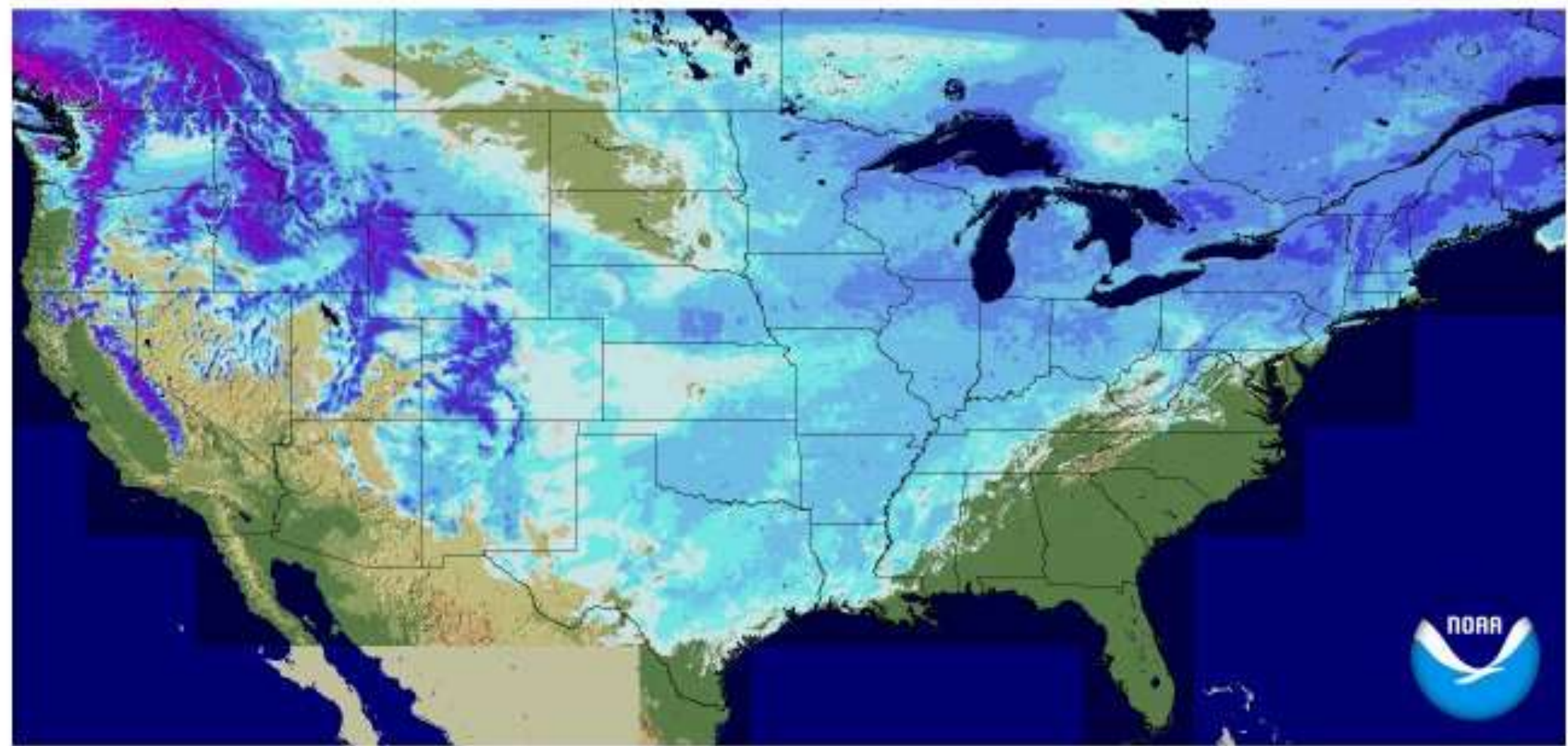
 KSUWheat

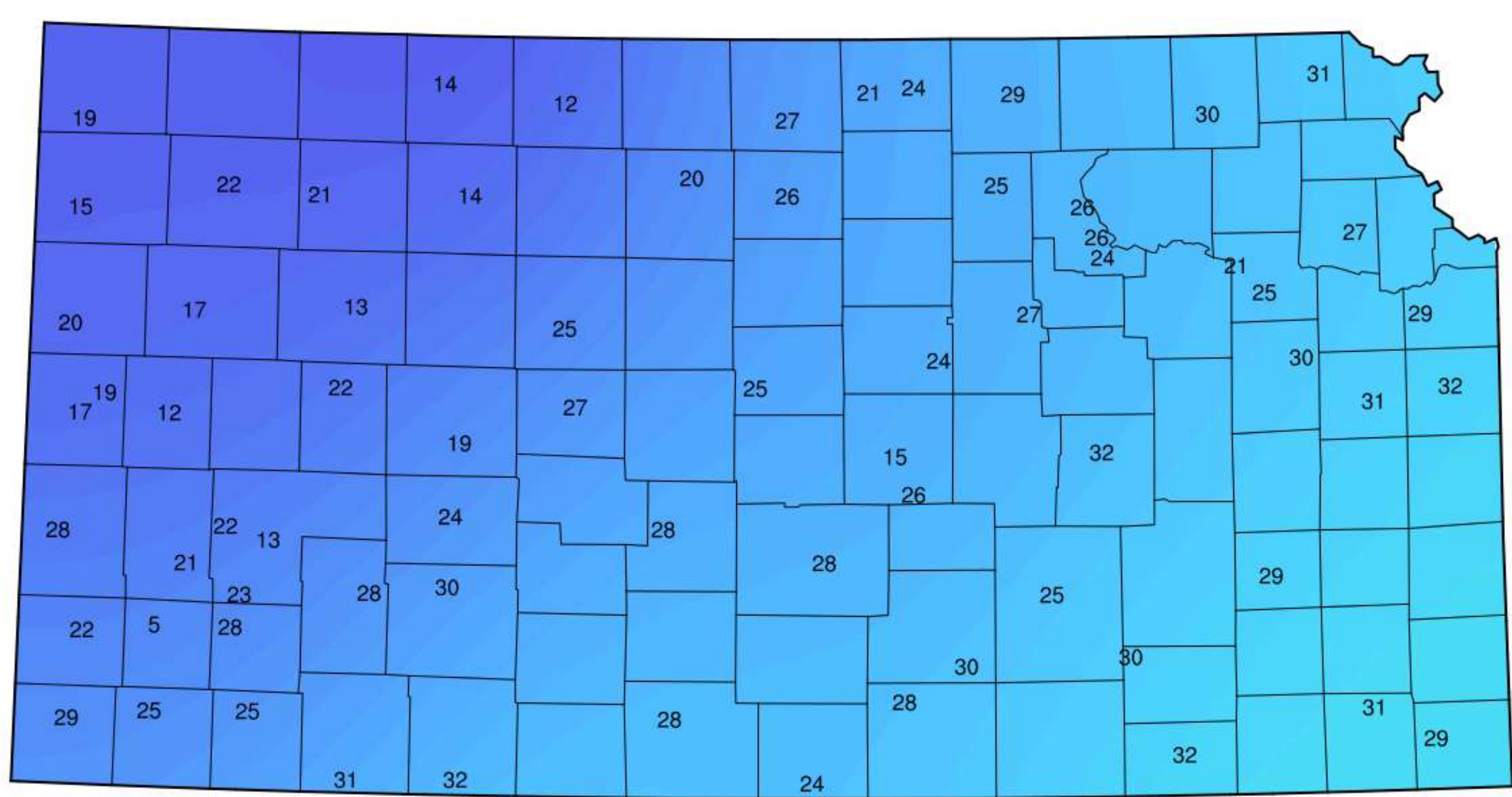


Kansas Mesonet - Hours Below 12 at 2021-02-16 08:40 (CST)

Snow Depth

2021-02-17 06 UTC



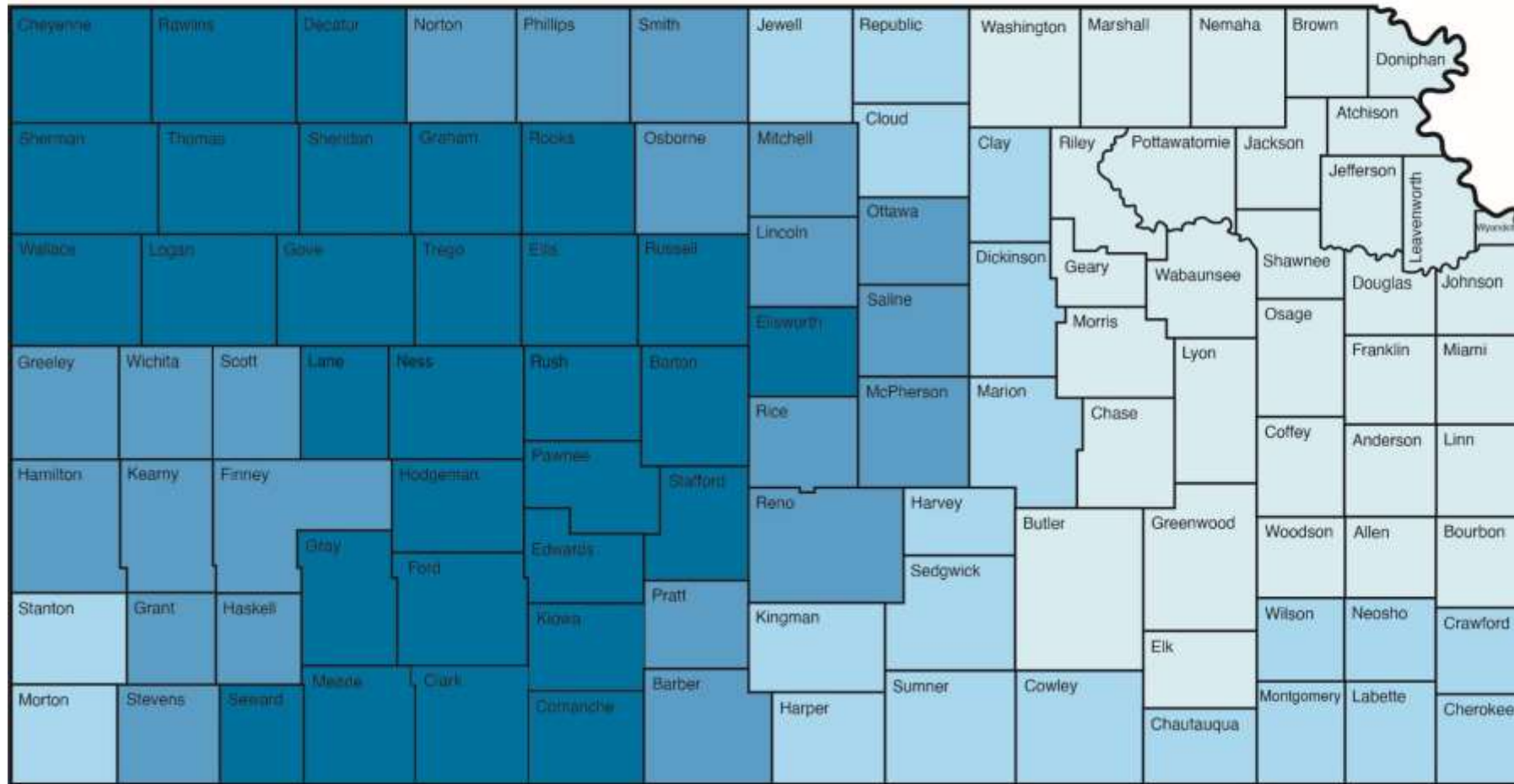


Kansas Mesonet - 7 Day 2inch Soil Temp Min at 2021-02-17 14:55 (CST)



Preliminary Assessment of Wheat Freeze Injury

April 22, 2021



Risk map based on observations of wheat fields by Kansas State University: R. Lollato, K. Andersen Onofre, L. Haag, E. DeWolf, S. Duncan, S. Campbell, C. Dinkel, S. Dooley, D. Hallauer, J. Falk-Jones, R. Ladd, C. Long, M. Meeks, C. Miller, G. Sassenath, J. Wisbey, S. Wick

Risk of Freeze Injury

-  Low risk
-  Moderate risk
-  Moderate/high risk
-  High risk

Freeze damage to the developing wheat head

Damaged heads



Damaged awns



Twisted spike

Symptoms of freeze damage to the developing wheat head

Healthy growing point
- crisp/turgid
- light green

Damaged growing point
- mushy
- white/brown

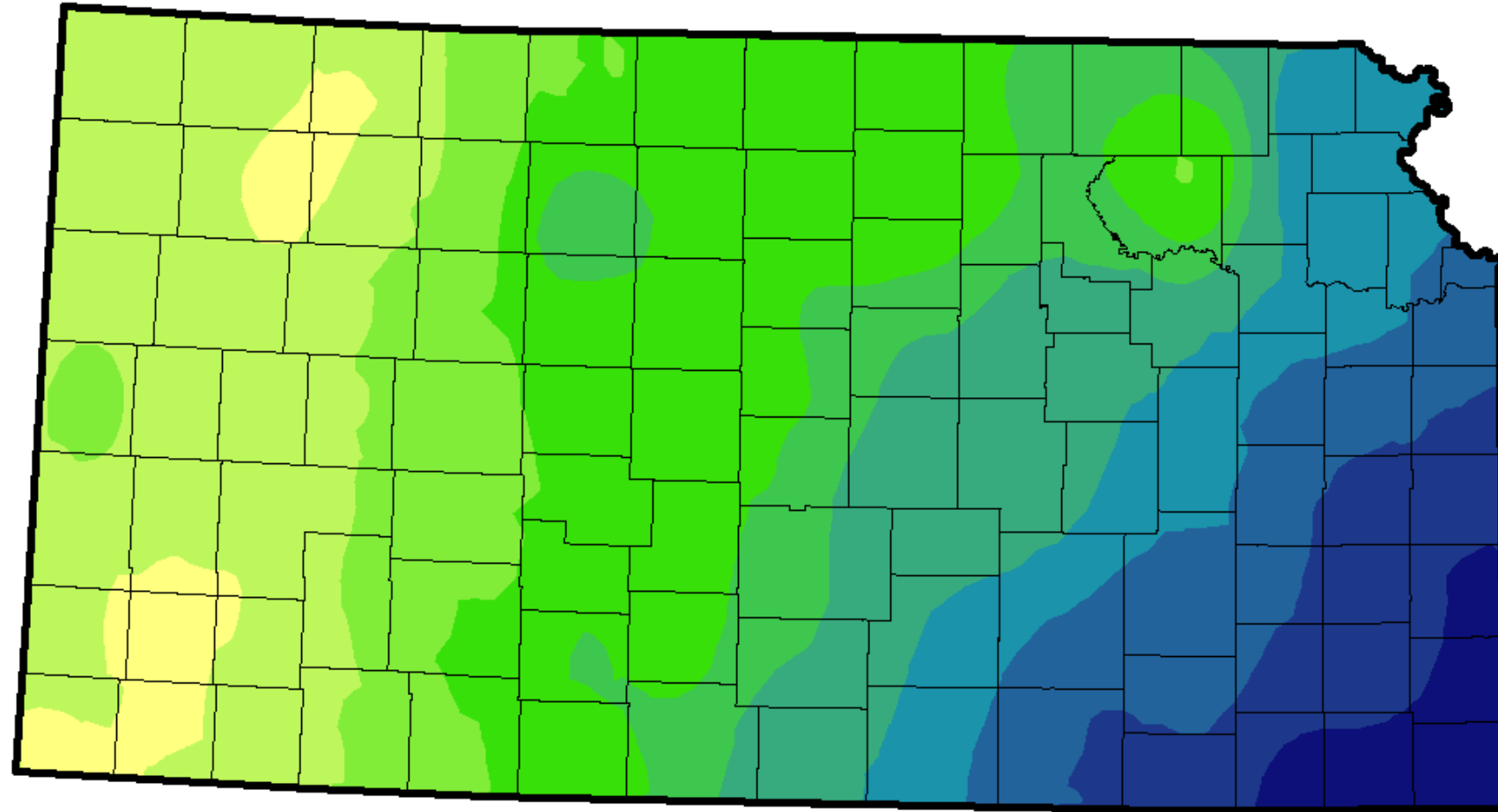


Symptoms of freeze damage to the developing wheat head



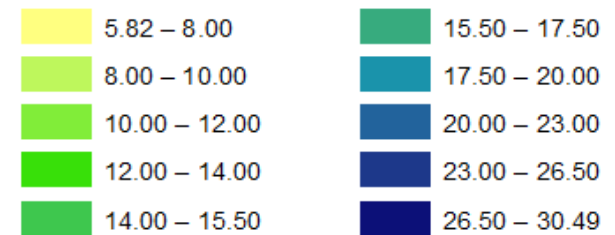
Total Precipitation

September 1, 2020 - May 17, 2021



0 25 50 100 Miles

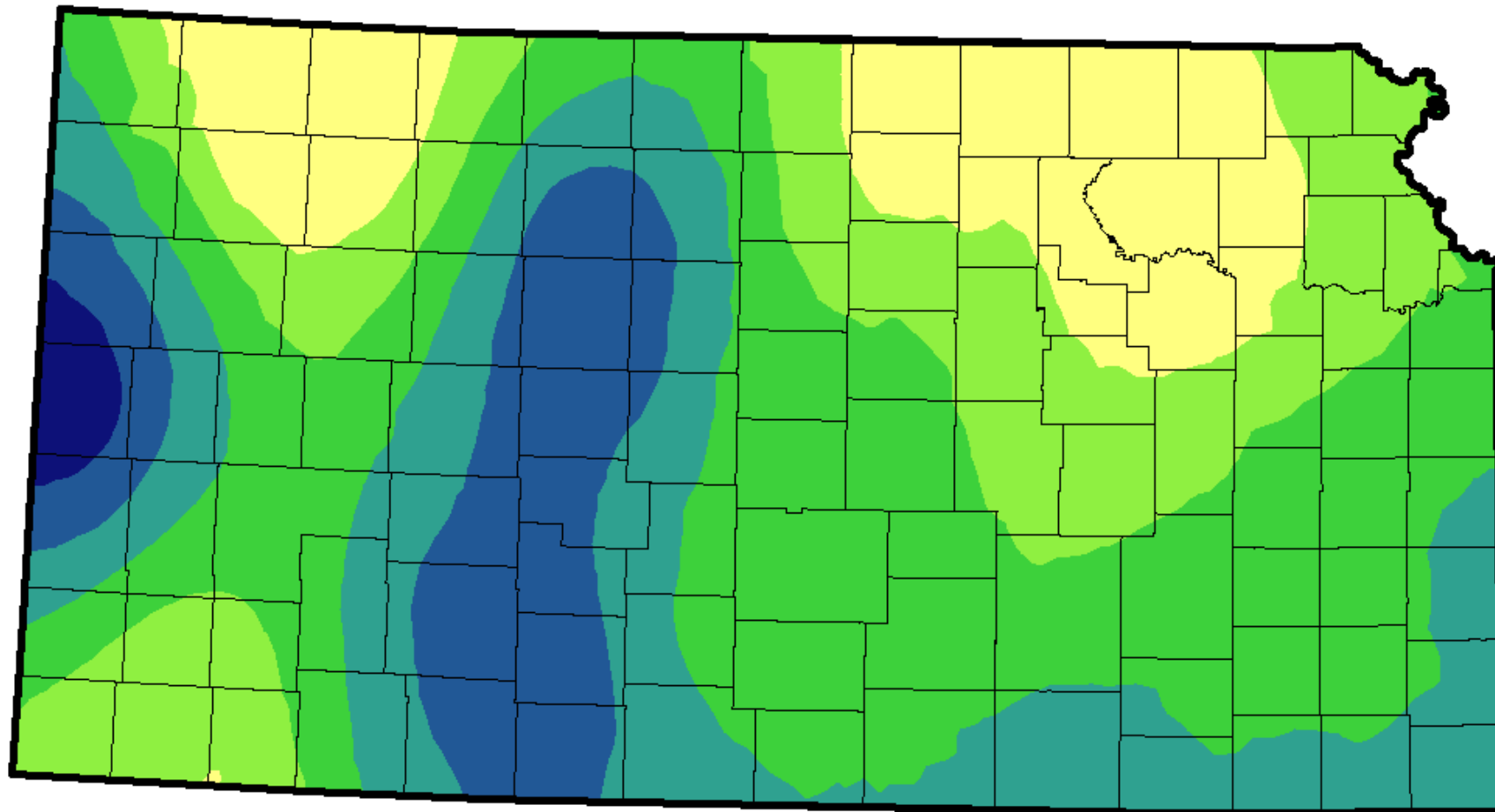
Total Precipitation (Inches)



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Percent of Normal* Precipitation

September 1, 2020 - May 17, 2021



0 25 50 100 Miles

Percent of Normal* Precipitation (100=Normal)



Produced by Weather Data Library
Department of Agronomy
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*based on 1981-2010 normals

Symptoms of drought stress



Rolled up leaves
Blue discoloration

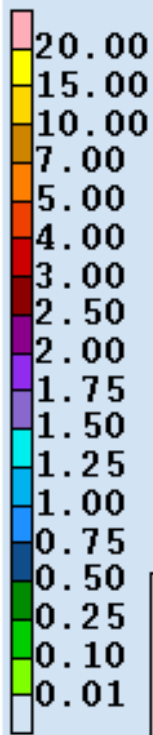
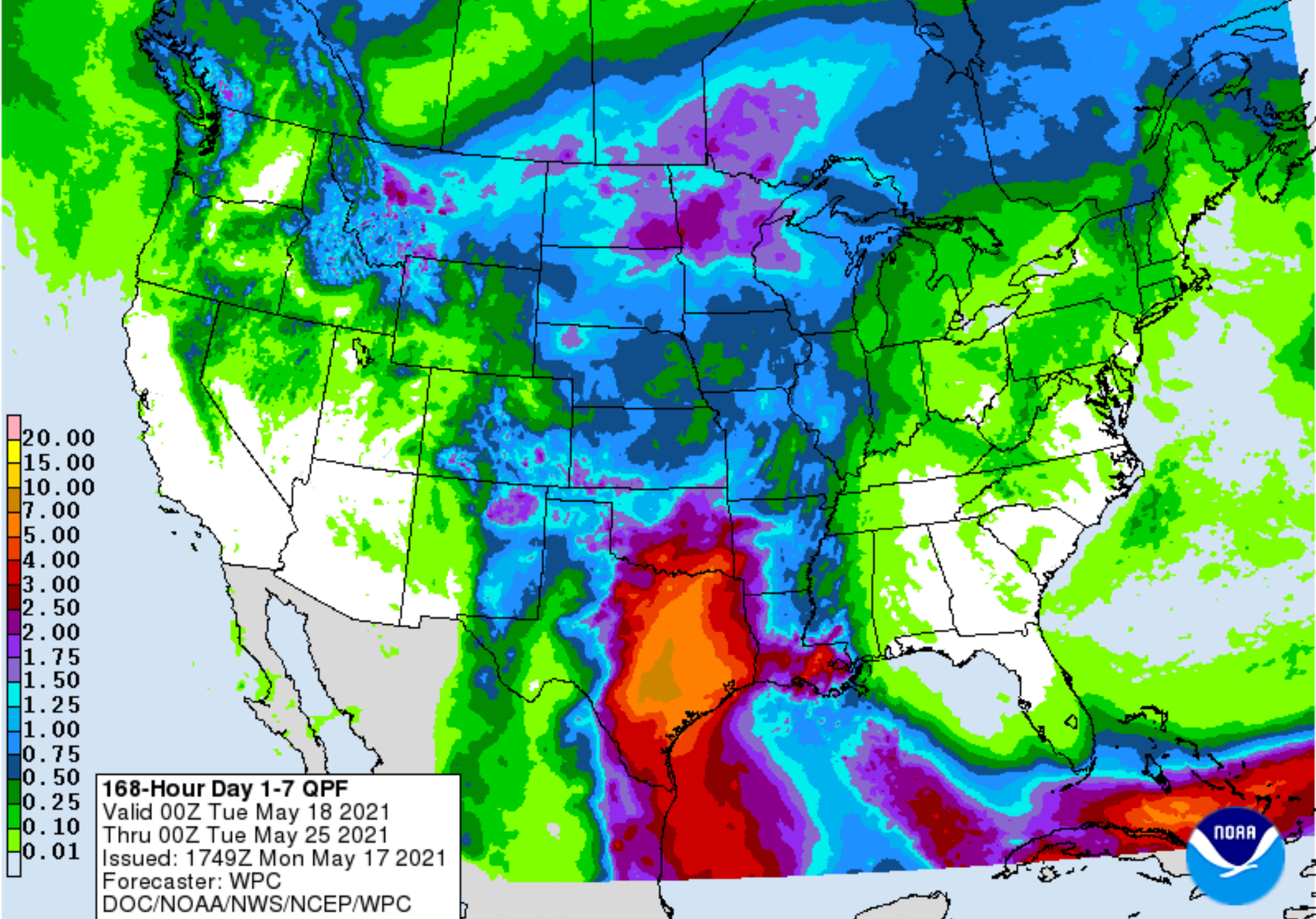
Lower canopy turning yellow

Symptoms of drought stress



Rolling up of leaves
Blue discoloration
Short, stunted plants
Loss of lower leaves
Very thin canopy





168-Hour Day 1-7 QPF
Valid 00Z Tue May 18 2021
Thru 00Z Tue May 25 2021
Issued: 1749Z Mon May 17 2021
Forecaster: WPC
DOC/NOAA/NWS/NCEP/WPC



Area abandonment





Questions?

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Wheat Quality Tour Launch Meeting
Manhattan, KS
17 May 2021



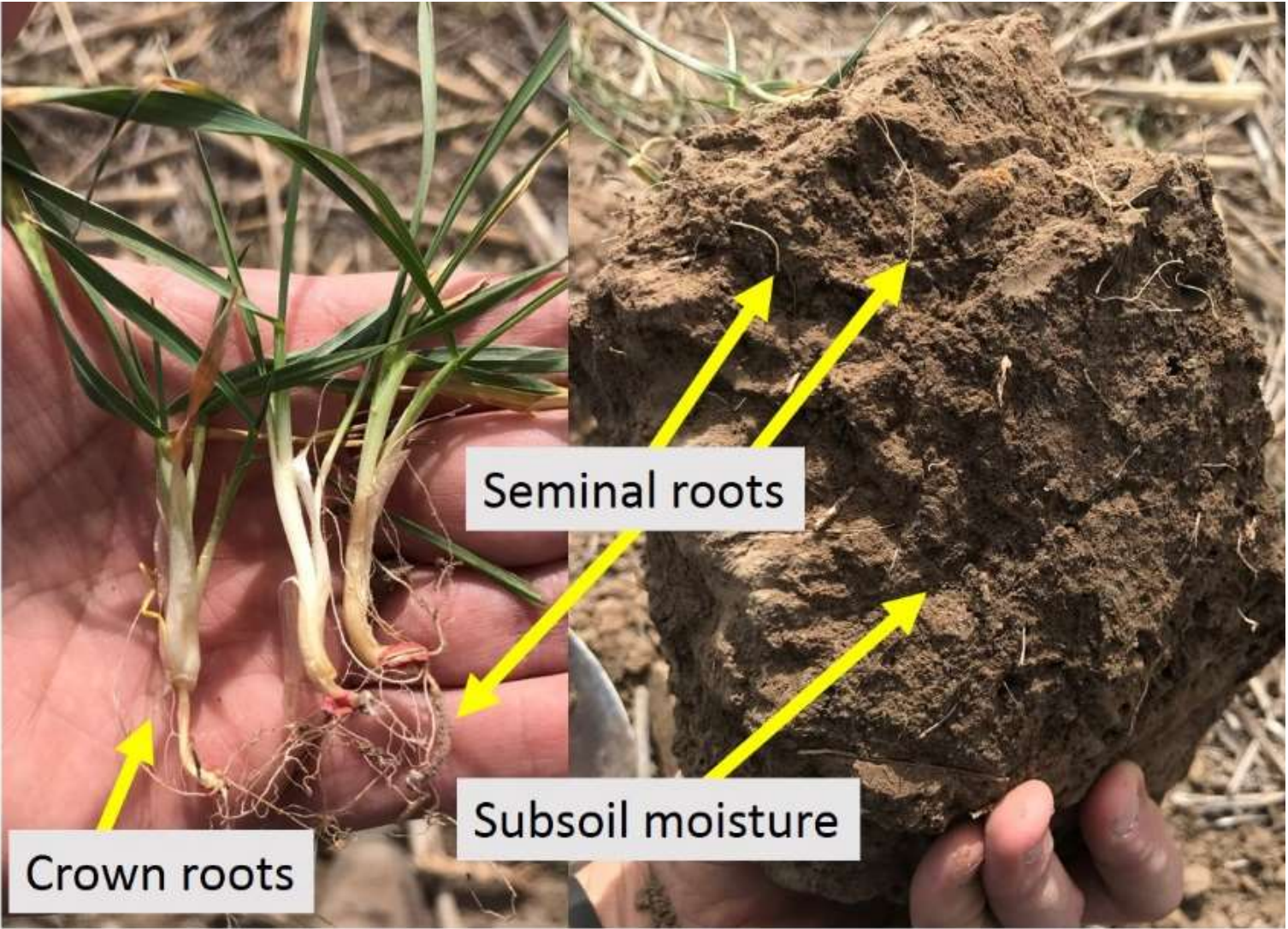


Photo by: Tyler Ediger