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**Extension Educator**  
**University of Nebraska**





# HAIL KNOW

NEBRASKA EXTENSION

# Overview of the Hail Know project

June 2014 hail event was the catalyst for this project

**Challenge:** Nebraska Extension has hail information, but it's located in many places

**Opportunity:** Repackage the information to make it appealing, accessible, and shareable

USDA NIFA funded the project for \$41,000 from September 2015 to August 2018



United States Department of Agriculture  
National Institute of Food and Agriculture

# Meet the Team



Find us on social media: @HailKnowUNL

# Overview of the Hail Know project

Hail Know addresses six topic areas

Hail Events &  
Damage

Crop Damage  
Assessment

Insurance &  
Risk  
Management

Replanting  
Considerations

Managing a  
Recovering  
Crop

Cover Crops

# Hail Know Resource Package

- This is a three-part project
- Each part is designed for different learning styles
- [cropwatch.unl.edu/hailknow](http://cropwatch.unl.edu/hailknow)

**Replanting Considerations**  
Prepare for and recover from hail

**Making a Replant Decision**  
Hail causes the most uncertainty in late May through June due to plant growth stage and the final crop insurance planting date. You should **assess current plant stand and yield potential** before you make a replant decision. Consider growing point vulnerability.  
A **Yield Potential Table** is a useful tool that can help you make a decision.

**Weather Conditions Following a Hail Event**  
Weather influences seedling survival and recovery. **Cool, wet conditions following the storm may increase disease susceptibility** and require you to delay plant assessment.

Infographics

Managing a Recovering Crop - Hail Know Video 5

**JUSTIN McMECHAN** HAIL KNOW  
EXTENSION SPECIALIST

Videos

WEATHER (GDD & ET) INFO & RESOURCES CROPS MANAGEMENT RELATED TOPICS ARC

**HAIL KNOW**

**MANAGE MY RECOVERING CROP**



**Managing a Recovering Crop**  
Hail damage to plants can increase the likelihood of inoculation of some plant pathogens and in some insect pests. These organisms can increase losses and, in some cases, make grain unmarketable.

Infographic: Managing a Recovering Crop

Website

# AgriTools



Home page  **AgriTools** 

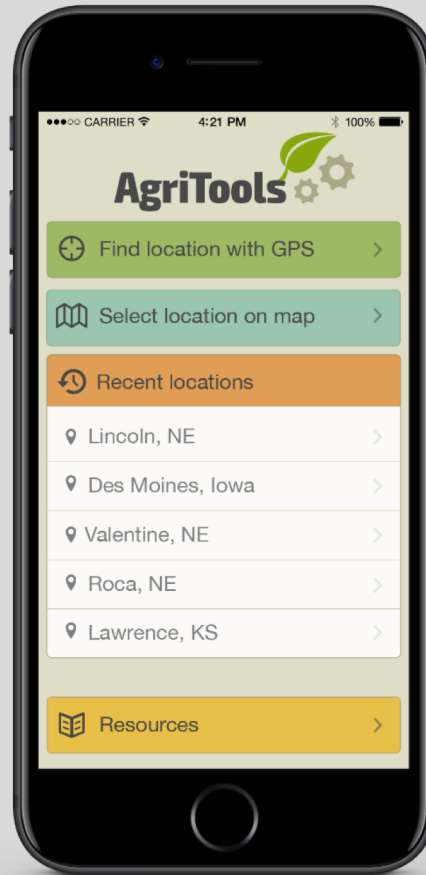
Welcome to University of Nebraska-Lincoln Extension AgriTools.  
The home of agricultural, climate, and weather information

**Enter location (or allow gps)**

Temp _____	Wind _____
Humidity _____	24 Hour Precipitation _____
Solar Langley _____	Soil Temperature _____
ET Enter Emergence Date : Yesterday _____ Proj. next 3 days _____	
GDD Enter Emergence date: GDD Total _____	
	Day 1 Day 2 Day 3 Day 4 Day 5
<b>5 Day Forecast</b>	High
	Low
	Precip %
	Wind

Click tab for mobile apps, tools, and related information

- LIVESTOCK**
- CROPS AND IRRIGATION**
- PEST MANAGEMENT**
- CLIMATE AND WEATHER**



## AgriTools Timeline

**2013**

Initial idea  
Sent out user survey through CropWatch

**2014**

Received Innovation Grant  
Educator/Specialists team to help design  
Create Beta Version

**2015**

Internal review and Movement of Media  
Internal testing of Beta1 & 2

**2016**

Crop Advisor/Farmer testing - Beta2 & 3

**2017**

iOS version released in January

**2018**

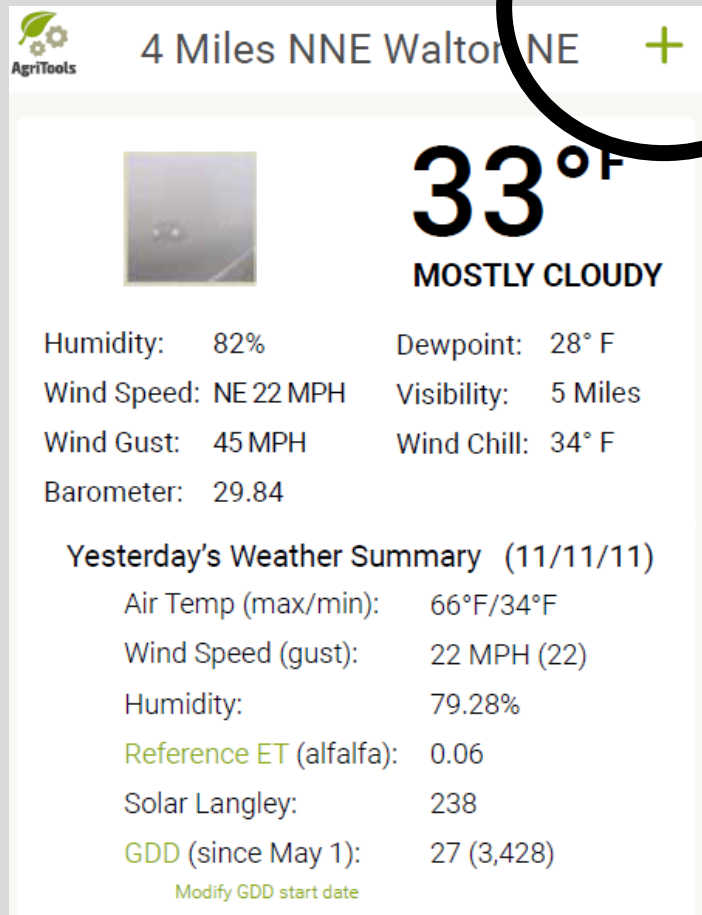
Android Version released in January








New for  
2019!



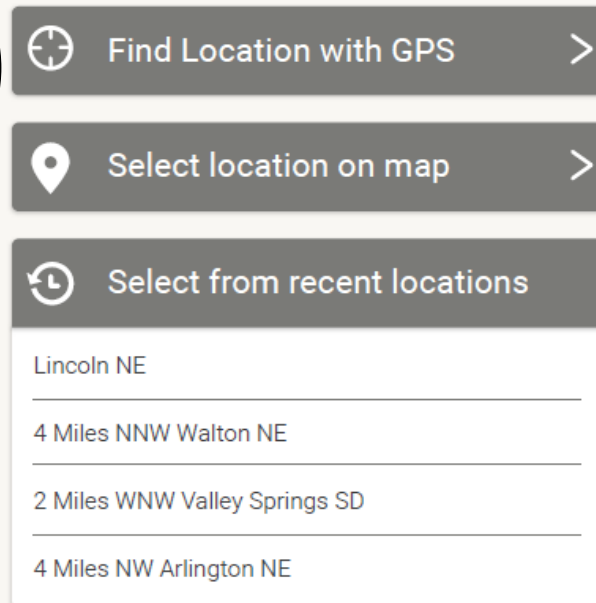
AgriTools 4 Miles NNE Walton NE +

 **33° F**  
MOSTLY CLOUDY

Humidity: 82% Dewpoint: 28° F  
Wind Speed: NE 22 MPH Visibility: 5 Miles  
Wind Gust: 45 MPH Wind Chill: 34° F  
Barometer: 29.84

Yesterday's Weather Summary (11/11/11)

Air Temp (max/min): 66°F/34°F  
Wind Speed (gust): 22 MPH (22)  
Humidity: 79.28%  
Reference ET (alfalfa): 0.06  
Solar Langley: 238  
GDD (since May 1): 27 (3,428)  
[Modify GDD start date](#)



Find Location with GPS >

Select location on map >

Select from recent locations

- Lincoln NE
- 4 Miles NNW Walton NE
- 2 Miles WNW Valley Springs SD
- 4 Miles NW Arlington NE



4 Miles NNE Walton NE +



# 33°F

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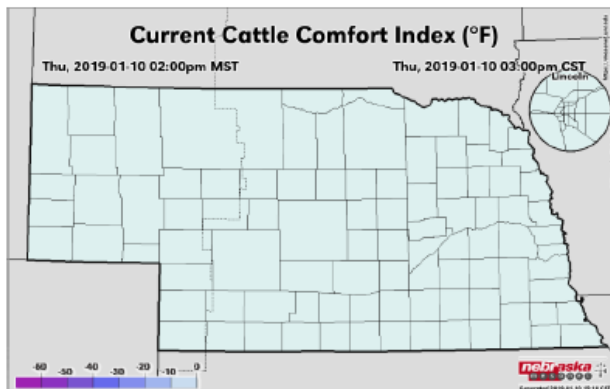
### Forecast

44°	44°	44°	44°	44°
This Afternoon	Tonight	Friday	Friday Night	Saturday
44°	44°	44°	44°	
Saturday Tonight	Sunday	Sunday Night	Monday	



Forecast Graphs >

### Weather Maps



[Share to Social Media](#)

Select Map

### Additional Weather Resources

[Mobile Apps](#)

[Websites](#)



Weather



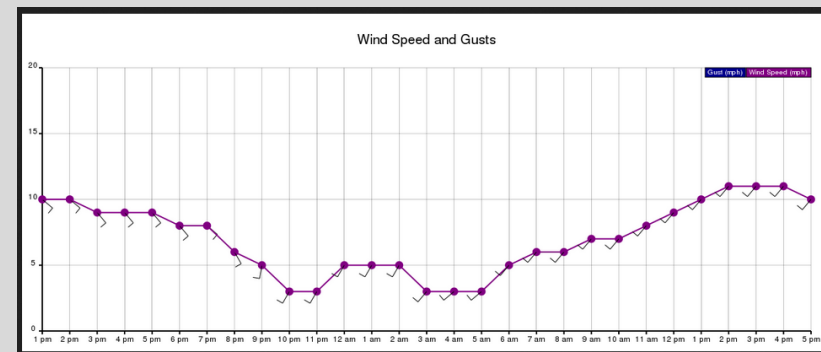
Crops



Pests



Livestock





### Estimate Crop Water Use Value

Select Crop ▼

Select Stage ▼

**22** WATER USE VALUE

#### Additional Crop Resources

##### Mobile Apps

[Grass Snap](#)

Monitor range and pastureland using photo points and record keeping.

##### Websites

[UNL Beef Website](#)

[Heat Stress Calculator](#)



Weather



Crops



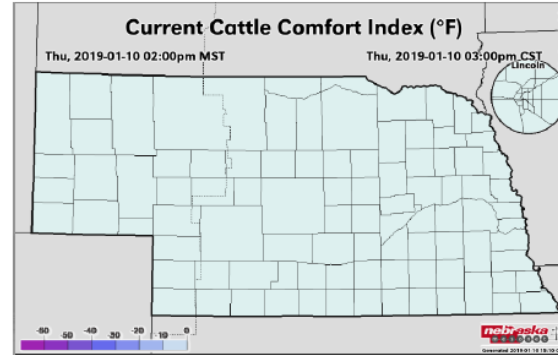
Pests



Livestock



### Livestock Maps



[Share to Social Media](#) ↗

Select Map ▼

#### Additional Livestock Resources

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##### Websites

[UNL Beef Website](#)

[Heat Stress Calculator](#)

[APP DISCLOSURES](#)



Weather



Crops



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# 4 Miles NNE Walton NE +

Select Pest ▼

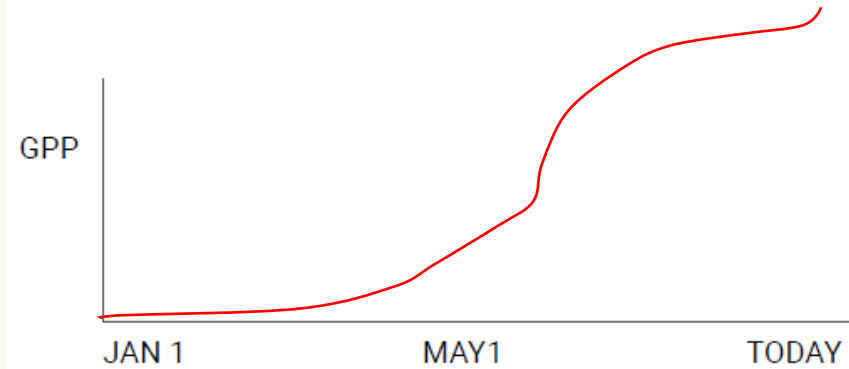
Growing Degree Days: TODAY **18** RUNNING TOTAL **2175**

Threshold	This Season	Historical Average Early	Historical Average Late
Threshold #1	5/28	5/28	5/28
Threshold #1	6/6	6/6	6/6
Threshold #1	6/28	6/28	6/28
Threshold #1	7/15	7/15	7/15
Threshold #1	<small>PROJECTED</small> 8/31	8/31	8/31
Threshold #1	9/12	9/12	9/12

[Pest scouting images & info >](#)

30-Day Graph

Full Season Graph



### Additional Pest Resources

[Mobile Apps](#)

[Websites](#)



Weather



Crops



Pests



Livestock

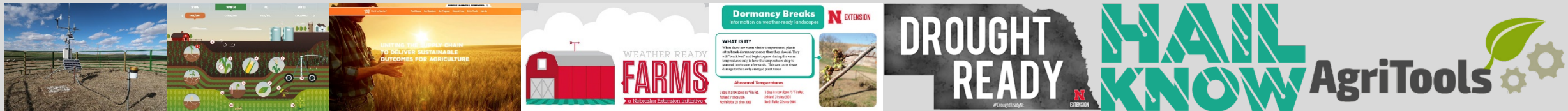


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NEBRASKA EXTENSION



[weather-ready.unl.edu](http://weather-ready.unl.edu)



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[@tylerw\\_unl](https://twitter.com/tylerw_unl)

