

WHERE

All tools and products for this project are available online at <http://mrcc.isws.illinois.edu/VIP>. The items available on the project webpage include:

- Static maps that are updated multiple times per day
- A Freeze Map Interface with the most up-to-date information (GIS format) where users can turn on multiple layers, zoom in and out, get information about the data that went into the maps, and view guidance and impact reports
- Online guidance and impact reporting forms (available only for subscribers to listserv)
- List of subscribers to the project (available only for subscribers to listserv)

FUTURE

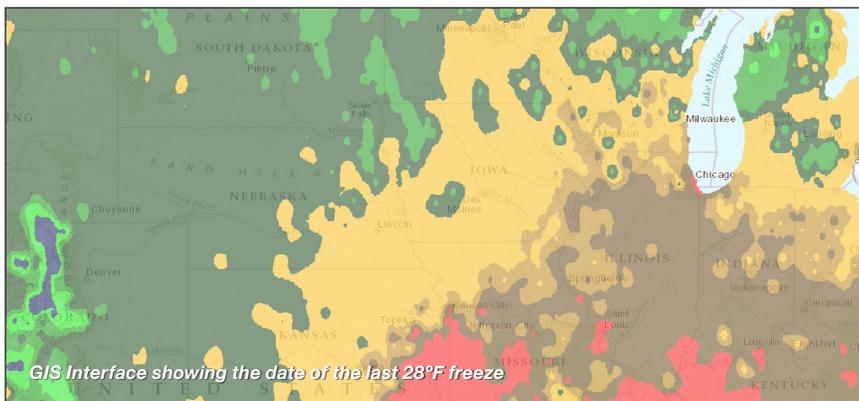
The MRCC frost/freeze project began in fall 2012. There are currently separate tools for the fall 2012 and spring 2013 seasons, with plans to develop the project into a 12-month scope in order to accommodate frost/freeze concerns for the contiguous 48 states and unique vegetation regimes throughout the year.



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The Midwestern Regional Climate Center is a cooperative program of the Illinois State Water Survey (Division of the Prairie Research Institute, University of Illinois) and the National Climatic Data Center (National Oceanic and Atmospheric Administration, U.S. Department of Commerce).

Frost/Freeze Guidance Project
<http://mrcc.isws.illinois.edu/VIP>



WHAT

The Midwestern Regional Climate Center (MRCC) is providing collaboration among weather forecasters, University Extension specialists, state climatologists, and other vegetation experts to improve communication about the state of vegetation and its susceptibility to potentially damaging low air temperatures.

WHY

Low temperatures during the growing season can cause devastating and lasting effects on vegetation. Climatologically determined dates for when the first or last potentially damaging freeze of a growing season occurs can be used as guidance for when forecasters should consider issuing awareness headlines to the community. However, not every plant is susceptible to the same low temperature threshold. Considerations for agriculture may be different from horticulture, nurseries, or home gardeners. Extreme or unusual seasons are often most dangerous because the weather does not conform well to the climatological dates of first or last freeze.

Therefore, forecasters are seeking ways in which they can augment their current resources for when to issue frost/freeze headlines with input from vegetation experts and operational online climate information.

While not all damage can be prevented, an advanced warning of air temperatures that may negatively affect susceptible vegetation can provide the opportunity for preventative action such as bringing plants indoors, covering vulnerable plants, or activating heaters.

WHO

Anyone interested in participating in this project as either a forecaster or someone who can provide information on the current state of local vegetation is welcome to subscribe to the project.

The effective potential of this project depends upon the effort of a diverse community of individuals who are both willing and interested in sharing their expertise in plant growth cycles, plant vulnerabilities, atmospheric forecasts, and climatology.

In order for a frost/freeze forecast headline to be beneficial, forecasters need to have the best guidance information possible on the state of the vegetative and climatological environment.

Subscription information

To subscribe to the project, simply:

- Send an email to listserv@listserv.illinois.edu
- Put "subscribe freeze-list <first name> <last name>" in the body of the email message.
- For example: subscribe freeze-list Jane Doe

Being a subscriber allows access to both the frost/freeze guidance and freeze impact forms for submission and the master list of all fellow subscribers on the main webpage. There is an email listserv that subscribers automatically join that allows them to post and receive emails to and from the entire group.

HOW

Guidance from experts on local vegetation growing cycles and susceptibility is provided through online forms that advise forecasters whether or not a frost/freeze headline may be warranted for the vegetation of their expertise.

Through a simple 3-category guidance rating, these experts can indicate the following:

- "No": issuance of frost/freeze headlines are unnecessary due to lack of growth, plants being at a stage that is more resistant to lower temperatures, or some other reason
- "Maybe": issuance of frost/freeze headlines could be warranted depending upon the type of vegetation that is currently susceptible and the range of temperatures that could be most damaging
- "Yes": issuance of frost/freeze headlines are strongly encouraged due to the high activity of vegetative growth and stage in the growing cycle

Once submitted, forecasters can review these guidance forms and refer to the "Freeze Advisory Status" maps summarizing this data when considering whether or not to issue a frost/freeze headline when low temperatures are anticipated.

In addition, Freeze Impact Forms are available that should be utilized to submit any damage or other negative effects on vegetation after a frost/freeze event.

