

Paperwork Reduction Act

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid OMB Control Number. The approved OMB Control Number for this information collection is 0648-0342. Without this approval, we could not conduct this survey. Public reporting for this information collection is estimated to be approximately 1-5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are voluntary. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the National Weather Service/Analyze, Forecast and Support Office, danielle.nagele@noaa.gov.

Survey Instrument

Introduction

NWS is exploring potential changes and improvements to the way it displays and communicates frost and freeze events. Currently, NWS issues five products to alert the public and partners on these hazards: Frost Advisory, Freeze Watch, Freeze Warning, Hard Freeze Watch, Hard Freeze Warning. The following survey is meant to gather preliminary information on public and partners use of and needs for frost and freeze information.

Demographics

Before we begin the survey, we'd like to ask you a few questions about yourself. These answers will help us ensure that we capture the perspectives of a broad range of people from different backgrounds. If you feel uncomfortable answering any particular question, you may skip it.

1. What is your affiliation?

- Individual
- Student/teacher K-12
- University student
- University faculty/staff
- Other research institution
- Business/industry
- NOAA

- Other Federal government
- News media
- State/local government
- Other _____

2. Where are you located?

Drop-down of all US States and territories provided

Use of Frost/Freeze

3. From whom do you receive information about frost/freeze hazards? (Choose all that apply)

- NWS text products (e.g. Watch, Warning, Advisory)
- NWS graphics
- Local TV/print/radio media
- Emergency Management
- Local government officials
- Friends/family
- Other

4. For what purpose do you primarily use information about frost/freeze hazards?

- Business
- Personal
- Legal
- Education
- Other

5. Which of the following headline terms are you familiar with? (Choose all that apply)

- Frost Advisory
- Freeze Warning
- Hard Freeze Warning
- Freeze Watch
- Hard Freeze Watch
- None

For the next section, we would like to get a better sense of how you use the NWS Watch, Warning, and Advisory frost/freeze products. See below for descriptions of these products.

Descriptions:

Frost Advisory: Minimum shelter temperatures forecast to be 33°F to 36°F during the locally defined growing season, on nights with good radiational cooling conditions (e.g., light winds and clear skies).

Freeze Watch: Conditions are favorable for a freeze event to meet or exceed Freeze Warning criteria in next 12 to 48 hours during the locally defined growing season.

Freeze Warning: Minimum shelter temperature is forecast to be 32°F or less during the locally defined growing season.

Hard Freeze Watch: Conditions are favorable for a freeze event to meet or exceed Hard Freeze Warning criteria in the next 12 to 48 hours during the locally defined growing season.

Hard Freeze Warning: Minimum shelter temperature is forecast to be 28°F or less (slightly lower or higher based on local criteria) during the locally defined growing season.

Please share your level of agreement/disagreement with the following statements:

6. The Frost Advisory is important to my personal and/or professional decision making.

- Strongly agree
- Agree
- Neither disagree or agree
- Disagree
- Strongly disagree
- I don't know

7. The Freeze Watch is important to my personal and/or professional decision making.

- Strongly agree
- Agree
- Neither disagree or agree
- Disagree
- Strongly disagree
- I don't know

8. The Freeze Warning is important to my personal and/or professional decision making.

- Strongly agree
- Agree
- Neither disagree or agree
- Disagree
- Strongly disagree
- I don't know

9. The Hard Freeze Watch is important to my personal and/or professional decision making.

- Strongly agree
- Agree
- Neither disagree or agree
- Disagree
- Strongly disagree
- I don't know

10. The Hard Freeze Warning is important to my personal and/or professional decision making.

- Strongly agree
- Agree
- Neither disagree or agree
- Disagree

- Strongly disagree
- I don't know

Proposed Changes to Frost/Freeze

11. NWS should discontinue the Hard Freeze Watch and Hard Freeze Warning leaving Frost Advisory, Freeze Watch, and Freeze Warning.

- Strongly agree
- Agree
- Neither disagree or agree
- Disagree
- Strongly disagree
- I don't know

12. NWS should discontinue the Freeze Watch and Hard Freeze Watch leaving Frost Advisory, Freeze Warning, and Hard Freeze Warning.

- Strongly agree
- Agree
- Neither disagree or agree
- Disagree
- Strongly disagree
- I don't know

13. If NWS were to discontinue the Freeze Watch, Hard Freeze Watch, and Hard Freeze Warning products leaving Frost Advisory and Freeze Warning, how would this impact you?

- Strong positive impact
- Positive impact
- No impact
- Negative impact
- Strong negative impact
- I don't know

13. Do you have any suggestions as to how NWS can improve their Frost/Freeze products and services?

[text field]

Sample product examples to be displayed within the survey

Frost Advisory

...FROST ADVISORY IN EFFECT FROM 4 AM TO 8 AM EDT TUESDAY...

* WHAT...Temperatures as low as 34 will result in frost formation.

- * WHERE...Portions of northwestern Connecticut and east central New York.
- * WHEN...From 4 AM to 8 AM EDT Tuesday.
- * IMPACTS...Frost could kill sensitive outdoor vegetation if left uncovered.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Take steps now to protect tender plants from the cold.

Freeze Watch

...FREEZE WATCH IN EFFECT FROM LATE TUESDAY NIGHT THROUGH WEDNESDAY MORNING...

- * WHAT...Sub-freezing temperatures as low as 31 possible.
- * WHERE...La Moure and Dickey Counties.
- * WHEN...From late Tuesday night through Wednesday morning.
- * IMPACTS...Frost and freeze conditions could damage or kill crops and other sensitive vegetation.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Take steps to protect your garden. Cover outdoor potted plants or bring them out of the cold.

Freeze Warning

...FREEZE WARNING REMAINS IN EFFECT FROM 2 AM CDT /1 AM MDT/ TO 9 AM CDT /8 AM MDT/ WEDNESDAY...

- * WHAT...Sub-freezing temperatures as low as 25 expected.
- * WHERE...Portions of north central, northwest, south central, southeast, and southwest North Dakota.
- * WHEN...From 2 AM CDT /1 AM MDT/ to 9 AM CDT /8 AM MDT/ Wednesday.
- * IMPACTS...Frost and freeze conditions will kill crops and other sensitive vegetation, and possibly damage unprotected outdoor plumbing.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Take steps now to protect tender plants from the cold. To prevent

freezing and possible bursting of outdoor water pipes, they should be wrapped, drained, or allowed to drip slowly. Those that have in-ground sprinkler systems should drain them and cover above-ground pipes to protect them from freezing.

Hard Freeze Watch

...HARD FREEZE WATCH IN EFFECT FROM THURSDAY EVENING THROUGH FRIDAY MORNING...

- * WHAT...Sub-freezing temperatures between 15 and 28 degrees.
- * WHERE...Much of eastern New Mexico as well as the northwest Plateau, Lower Chama River Valley and the Santa Fe Metro area.
- * WHEN...From Thursday evening through Friday morning.
- * IMPACTS...Freeze conditions could kill crops, other sensitive vegetation and possibly damage unprotected outdoor plumbing.
- * ADDITIONAL DETAILS...Ensure pets have warm shelter and unfrozen water. If you have not already done so, drain water from irrigation and swamp cooler lines.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Take steps now to protect tender plants from the cold. To prevent freezing and possible bursting of outdoor water pipes they should be wrapped, drained, or allowed to drip slowly. Those that have in-ground sprinkler systems should drain them and cover above-ground pipes to protect them from freezing.

Hard Freeze Warning

...HARD FREEZE WARNING IN EFFECT FROM 8 PM THIS EVENING TO 11 AM MDT FRIDAY...

- * WHAT...Sub-freezing temperatures as low as 19 expected.
- * WHERE...Portions of central, east central, north central, northeast and northwest New Mexico.
- * WHEN...From 8 PM this evening to 11 AM MDT Friday.
- * IMPACTS...Frost and freeze conditions will kill crops, other sensitive vegetation and possibly damage unprotected outdoor plumbing.
- * ADDITIONAL DETAILS...Ensure pets have warm shelter and unfrozen water. If you have not already done so, drain water from irrigation and swamp cooler lines.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Take steps now to protect tender plants from the cold. To prevent freezing and possible bursting of outdoor water pipes they should be wrapped, drained, or allowed to drip slowly. Those that have in-ground sprinkler systems should drain them and cover above-ground pipes to protect them from freezing.