NWS MOUNT HOLLY

The Kite and Key

VOLUME I, ISSUE I

SPRING 2017

SPECIAL POINTS OF INTEREST:

- Welcome Letter
- Fun kid friendly science experiment
- Watch vs Warning
- Frost/Freeze: What to do?
- Cloud types

INSIDE THIS ISSUE:

Welcome to our new office newsletter!!

Welcome! This is the first in a series of seasonal newsletters we will be starting to issue for your reading pleasure.

A variety of interesting weather stories and topics will grace these pages. Any and all feedback from you will help us to improve what is placed on these pages in upcoming issues.

We hope you enjoy reading this as much as we have enjoyed putting it together!

WFO Mount Holly

What kind of cloud is that?

By: Sarah Johnson, Meteorologist

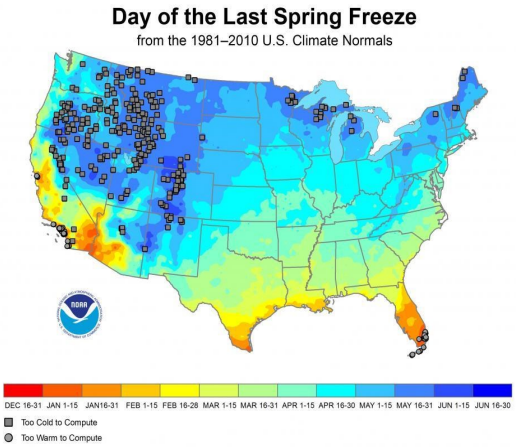
Who hasn't tried to see other shapes in clouds? But have you ever wondered how meteorologists classify clouds? The current system of classifying clouds goes all the way back to the early 1800s when early meteorologists came up with a system based on the way animal and plants were named, utilizing Latin names and a tiered approach. In 1896, the first international cloud atlas was published and adopted in nearly all countries, standardizing the way clouds are classified across the world. The International Cloud Atlas is now maintained by the World Meteorological Organization. The most recent update to the cloud atlas came in March of this year.

The tiered approach includes genera, species, and varieties. All clouds (with the exception of rare upper atmospheric clouds) are a part of one of the 10 genera: Cumulonimbus, Cumulus, Stratus, Stratocumulus, Nimbostratus, Altostratus, Altocumulus, Cirrus, Cirrocumulus, and Cirrostratus. Within the 10 main genera are several species and varieties, including a new species added with the latest update in March called Volutus. Clouds may be one species, and could be more

Continued on pg 3

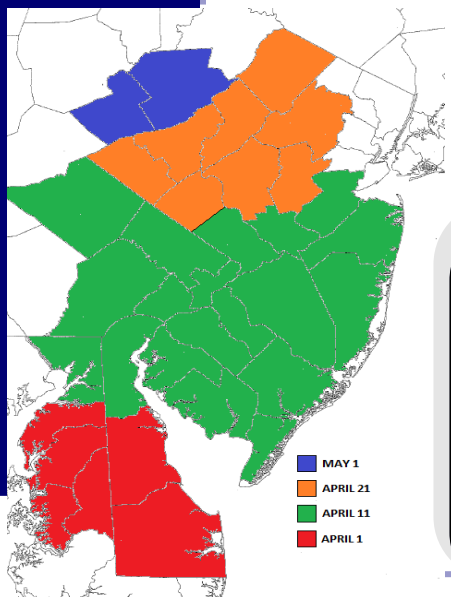
It's time to start thinking about the garden...

By: Dean Iovino, Meteorologist



The above map shows the average dates of the last freezing temperatures in the spring during the 30-year period from 1981 through 2010.

The below image shows the usual starting dates for our Freeze Watches, Freeze Warnings, and Frost Advisories in the spring.



After a rather mild winter, thoughts are already turning toward outdoor activities such as gardening. While it is fine to begin preparing your garden a little early, it is important not to start planting until the threat of freezing temperatures has passed.

Generally, northeastern Maryland and Delaware fall within the April 1 through April 15 range. The same is true for coastal sections of New Jersey and for urban areas along the Delaware River up to around Philadelphia. The remainder of southeastern Pennsylvania, Berks County and the Lehigh Valley, as well as the remainder of New Jersey fall within the April 16 through April 30 range. The average dates of the last freezing temperatures in the spring fall between May 1 and May 15 in the Pocono Region of Pennsylvania.

The National Weather Service Forecast Office in Mount Holly, New Jersey uses the average dates of the last freezing temperatures to help determine when to begin issuing Freeze Watches, Freeze Warnings and Frost Advisories. We start to issue them around or just before those dates. On occasion, when there is a particularly mild winter and/or early spring we sometimes start to issue the Freeze Watches, Freeze Warnings and Frost Advisories a little earlier than normal. That may be the case this year for at least parts of our region.

It is important to remember that freezing temperatures and frost can occur well after the average dates shown on the maps. If you are a gardener, pay special attention whenever the National Weather Service issues a Freeze Watch, Freeze Warning or Frost Advisory for your location.

It is always a good idea to follow the guidelines that are provided for each type of plant in our garden. The guidelines for your particular location can be found on seed packages, on the plastic tabs accompanying purchased plants and online from any number of reputable agricultural agencies or seed companies.

Keep particularly susceptible plants in pots or planters until your location is safely beyond any reasonable threat of frost or freezing temperatures. That way, you can bring them indoors if necessary.

Happy gardening!

Did you know...

Frost is the formation of thin ice crystals on the ground or other surfaces in the form of scales, needles, feathers, or fans. Frost develops under conditions similar to dew, except the temperatures of the Earth's surface and earthbound objects falls below 32°F.

A freeze occurs when the surface air temperature is expected to be 32° F or below over a widespread area for a significant period of time.

Kids Science Corner—Homemade Rain Gage

Contributed by Valerie Meola, Meteorologist

Here is a fun science experiment that you can do at home!

All it takes are a few household items and a bit of effort and you can make your own rain gage!

(You may need help from an adult to complete this project.)

What you need:

- One empty 2L bottle (no cap)
- One pair of scissors
- Roll of duct tape
- Pebbles or stones
- Black marker

Directions:

1. Draw a line around the top of the bottle using the marker. Use the scissors to cut the top of the bottle off. (image 1)
2. Place pebbles in the bottom of the bottle for stability.
3. Fit the top part of the bottle (nose down) into the bottom part of the bottle. Tape around the edges to secure the pieces in place.
4. Draw a line to mark the top extent of the pebbles and then place a strip of tape along the outside of the bottle. (image 2)
5. Measure 1/2 inch marks along the tape, making sure the 0 lines up with the top of the pebbles. (image 3)
6. Watch the weather and enjoy your new gage!

Images courtesy of wikiHow

Image 1

Image 2

Image 3

Clouds... continued from pg 1

than one variety.

Also with the latest update, several special clouds were added. Special clouds are clouds that are rare or specific to certain conditions. For example, Cataractagenitus are clouds that are formed around large waterfalls.

You can explore all of the genera, species, varieties, and special clouds, by visiting the International Cloud Atlas which is now available online at www.wmocloudatlas.org. For a fun poster of the main cloud types, visit http://www.nws.noaa.gov/om/

Added to the International Cloud Atlas in March of 2017, Asperitas is the first cloud formation added since cirrus intortus in 1951. Photo courtesy of Wikimedia—Avjoska

What defines a Severe Thunderstorm?

How about a Watch versus a Warning?

By: Michael Gorse, Meteorologist

The NWS says…

"When Thunder Roars, Go Indoors!"

The NWS issues Severe Thunderstorm Watches and Warnings; however, what is the meaning of these? Below we take a closer look at what defines a Severe Thunderstorm, a Severe Thunderstorm Watch and a Severe Thunderstorm Warning.

A **Severe Thunderstorm** is defined by hail 1 inch in diameter and larger (large hail), damaging winds of 58 mph or greater, or a tornado. This is also referred to as severe thunderstorm criteria. A reminder that lightning is not included as every thunderstorm contains lightning.

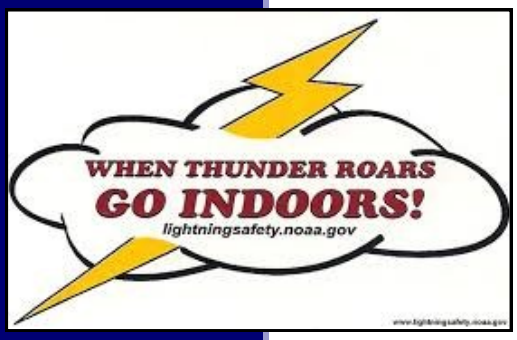
When a Severe Thunderstorm **WATCH** is issued by the NWS, this means that the conditions are favorable for the development of severe thunderstorms in the watch area. This is not a guarantee severe thunderstorms will occur, but large hail and/or damaging winds are **POSSIBLE**.

When a Severe Thunderstorm **WARNING** is issued by the NWS, this means that severe weather (i.e. large hail and/or damaging winds) are **IMMINENT** or **OCCURRING**. A warning will have more specific information contained within it, including expected hazards (i.e. damaging winds and/or large hail).

A Tornado WATCH and WARNING are the same, except here the main hazard or criterion is a tornado.

Another way to think about it is; a WATCH means to remain alert as the conditions are favorable for severe thunderstorm development. A WARNING means to take action as severe thunderstorms are imminent or occurring.

The NWS reminds you to stay safe, and remember, when thunder roars, go indoors!



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The National Weather Service (NWS) provides weather, water, and climate data, forecasts and warnings for the protection of life and property and enhancement of the national economy.

If you have any questions, comments, or suggestions, please contact us at ask.phi@noaa.gov

weather.gov/phi

Upcoming Spotter Training Classes...

For the latest spotter training schedule, please visit:

weather.gov/phi/classes

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