

GROWERTALKS

GT in Brief

1/1/2024

USDA Unveils Updated Plant Hardiness Zone Map

Chris Beytes

The U.S. Department of Agriculture (USDA) released a new version of its Plant Hardiness Zone Map, updating this valuable tool for the first time since 2012. The Plant Hardiness Zone Map is the standard by which gardeners and growers can determine which plants are most likely to thrive at a location.

The new map—jointly developed by USDA's Agricultural Research Service (ARS) and Oregon State University's (OSU) PRISM Climate Group—is more accurate and contains greater detail than prior versions. For instance, the 2023 map incorporates data from 13,412 weather stations compared to the 7,983 that were used for the 2012 map.

Plant hardiness zone designations represent what's known as the “average annual extreme minimum temperature” at a given location during a particular time period (30 years, in this instance). Put another way, the designations do not reflect the coldest it has ever been or ever will be at a specific location, but simply the average lowest winter temperature for the location over a specified time. Low temperature during the winter is a crucial factor in the survival of plants at specific locations.

As with the 2012 map, the new version has 13 zones across the United States and its territories. Each zone is broken into half zones, designated as “A” and “B.” For example, Zone 7 is divided into 7a and 7b half zones. When compared to the 2012 map, the 2023 version reveals that about half of the country shifted to the next warmer half zone and the other half of the country remained in the same half zone. That shift to the next warmer half zone means those areas warmed somewhere in the range of 0 to 5 degrees Fahrenheit, however, some locations experienced warming in the range of 0 to 5 degrees Fahrenheit without moving to another half zone.

Why the differences? USDA said they're mostly a result of incorporating temperature data from a more recent time period. The 2023 map includes data measured at weather stations from 1991 to 2020. Notably, the 2023 map for Alaska is “warmer” than the 2012 version. That's mainly because the new map uses more data representing the state's mountain regions where, during winter, warm air overlies cold air that settles into low-elevation valleys, creating warmer temperatures.

The temperature updates to plant hardiness zones aren't necessarily reflective of global climate change, said USDA, because of the highly variable nature of the extreme minimum temperature of the year, as well as the use of increasingly sophisticated mapping methods and the inclusion of data from more weather stations.

“These updates reflect our ongoing commitment to ensuring the Plant Hardiness Zone Map remains a premier source of information that gardeners, growers and researchers alike can use, whether they're located in the

continental United States, Alaska, Hawaii or Puerto Rico,” said ARS Administrator Dr. Simon Liu.

The new map can be found at planthardiness.ars.usda.gov. **GT**